Adolescent autonomy in medical decision making

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Abstract

Normally in the health profession there is a requirement to gain valid consent from patients before treatment can be given. This respect for patient autonomy has become a cornerstone of modern medical practice, however not all people are considered to be autonomous. Below a certain age, people are assumed not to be autonomous and can only consent to and refuse treatment if they can prove themselves competent. Currently there is no clear guidance for clinicians about to how to deal with patients under the legal age of medical consent who wish to choose treatment for themselves. This thesis seeks to explore the idea of adolescent consent and the problems associated with it. By considering a number of philosophical, neurological and developmental sources, as well as cases and specific laws, I intend to consider an approach to adolescent autonomy which could fill some of the conceptual gaps which there are in the current medical approach. In the following thesis I will discuss the importance of well-being, autonomy and liberty to the medical profession. I will discuss how these three things should be weighed against each other. As part of this discussion I present a framework to consider autonomy both generally and as it relates to adolescents specifically. I also consider a variety of approaches to development to their suitability to this subject. In the conclusion of this thesis I find that respect for autonomy is important in the medical system and that this respect should be extended to adolescent's who can be shown to be autonomous.

Introduction

In medical practice there is a constant need to make decisions. These decisions can range in complexity from advising a patient on their diet to needing to make urgent, in the moment, life and death decisions about treatment. But who or whom should have the power to make such decisions? Historically the majority of the power to make treatment decisions has lain with members of the health profession. The professional values discussed in the Hippocratic oath were for centuries the main guide for those practicing medicine. However, over the last 50 years there has been a marked change from a paternalistic authority based medical approach to one that emphasizes patient rights and the important role of autonomy. These changes have been accompanied by the rise of evidence based medicine as one of the main determinants of clinical practice as well as an increasing general standard of education, leading to a decrease in the education gap between health professionals and the lay public.

This change in approach to medical treatment has not been equally applied to all in society. In particular the old, young and those with cognitive impairments have not been granted the same degree of control over their medical treatment as others in the population. This thesis is focused on young people and the way they are handled by the health profession. Specifically, this thesis seeks to explore the current approach taken in dealing with youth autonomy and the ways in which it may be made to better suit a modern ethical approach to patient centered care.

The issue of youth autonomy, which I will commonly refer to as adolescent autonomy, is by no means simple to solve. Adults are widely presumed to be autonomous and able to guide their own actions. Young children, babies for instance, are not. As every adult starts out life as a baby, so too must every autonomous agent start out lacking in autonomy – therefore, there must be some stage at which the non-autonomous child becomes the autonomous adult. If autonomy is an ethically relevant consideration, as I shall discuss in this thesis, so too is this transition into autonomy ethically important. It is this stage of transition that makes this topic such a complicated and polarizing one.

Such ideas can sometimes seem abstract and confined to intellectual discussion, however decisions about adolescent autonomy have direct practical effects on real people and the way they conduct their daily lives. When a decision is made over the correct point to refuse the right to self determine medical treatment, the effects are extremely far reaching. Any person who fails to meet the standard of autonomy that has been decided upon has their ability to choose for themselves inhibited. Similarly, if a person is given the responsibility to choose for themselves before they are capable of it, this could have negative consequences for that person.

Given the importance in the health system of doing good and doing no harm, as well as the importance put on autonomy, finding a suitable way to manage adolescent autonomy is essential. As noted in a 2014 paper by Larcher and Brazier(1), the current medical position on adolescent autonomy is unclear. This has its greatest effects on clinicians, who need clearer guidelines to help them manage their patients and achieve best outcomes. Without such guidance, health professionals may be forced to make in the moment decisions which may not be well justified, and risk causing harm to their patients. In this thesis I will discuss ideas and concepts that are relevant to the consideration of adolescent autonomy, to begin a critical conversation that needs to be had.

In chapter one I shall begin by discussing some of the medicolegal elements currently governing the health profession in New Zealand. This involves both an examination of critical law cases that have set a precedent, such as Gillick vs. West Norfick, and New Zealand specific legislation such as the Care of Children act and the Code of Patient Rights. Throughout chapter one I will discuss some of the terminology used which will be built upon in later chapters. The latter part of chapter one is dedicated to discussing so called "Gillick competence", which is seen by some as an essential tool in determining competence in adolescence.

In chapter one I will point out some of the inconsistencies and problematic elements of current legislation, as there are important clinical questions which current approaches simply do not answer. I will show that, far from having functional tools to help clinicians determine competence, the limited set of tools that are available can produce conflicting recommendations, and often require significant interpretation themselves.

Chapter two establishes and discusses the theoretical framework underpinning the claims and critiques made in this thesis. I introduce the idea of well-being and show that it is a

concept that is of high importance to the health system, as well as having significant importance outside of the health system as well. From this starting position I claim that as it is important, all other outcomes the same, a better system is one that would better prioritize well-being.

Next I explore the concept of autonomy in depth and discuss its relation to well-being. My claim is that allowing autonomy in decision-making allows for the greatest outcomes in relation to well-being. This is because autonomy acts both as a mechanism for creating the best possible environment for wellbeing, but also as autonomy is part of what makes up well-being.

Next I introduce the concept of liberty as a means of mediating the sometimes competing interests of autonomy and well-being. In this discussion, I will describe and define liberty, then go on to explore the limits of autonomy and how a society can impose these limits on a populace. Having previously discussed well-being and autonomy, my goal in discussing liberty is to show how liberty can function while taking into account both autonomy and well-being.

In chapter three I will discuss the balancing of liberty, well-being and autonomy. As each of these considerations are important to consider when dealing with patients and their treatments, there will be times where to prioritize one consideration may come at the cost of the other two. It is therefore necessary to consider if there is a clear hierarchy of importance, and if not, how they ought to be balanced with each other. To this end, I shall discuss the limitations of attempting to choose a course of treatment for a person against their will.

This will involve a discussion of paternalism, the idea of acting to do good for a person against their will. Paternalism is an important concept in medicine, but I will argue that only certain forms of paternalism can be justified while still maintaining respect for autonomy. Throughout this chapter I will demonstrate that people must be allowed to act in a significantly autonomous way for their greatest well-being to be achieved. Finally, I shall end by relating the concepts of liberty, well-being and autonomy back to Gillick competence.

In chapter 4 I shall examine existing scientific approaches to development and discuss what can be taken from them in regard to adolescent autonomy. I will start by discussing

the advances in medical imaging and what this has meant for human understanding of neurodevelopment and the function of the brain. Then I will go on to further discussion on the role of certain parts of the brain and how these may affect one's ability to act with autonomy. After talking about the literature on the physical development of the brain, I will speak about the link between brain development and behavior. This will also require an exploration of normal behavior and the changes that occur in behavior during adolescence.

One of the main issues with such approaches I intend to explore are problems relating to individual variability and a lack of clear connection between brain and the generation of thought and consciousness. I will show that these problems work to significantly undermine neurodevelopmental approaches to defining autonomy. A similar problem, which will also be discussed in chapter 4, is the risk of the interpretation of neuroscientific findings. Neuroscience is often seen as a more concrete and objective discipline than disciplines like psychology and sociology. However, as I will show, this is not necessarily true. Neuroscientific findings require a significant amount of interpretation to give the findings practical implications. This level of subjectivity is critical to understand as it removes much of the gravitas often associated with neuroscientific claims.

Finally in chapter 4 I will discuss theories of development and consider the approach that they take to development, and what bearing this may have on adolescent autonomy. Through exploring the structures associated with such approaches, I will show that these approaches may be useful when considering normal age associated development, but fail to give significant insight into the problem of defining a point of competence: the point at which one goes from non-autonomous to being autonomous to make a specific decision. This failure is due, in part, to normal being impossible to define. Instead, developmental theories describe a range, and have criteria for what constitutes meeting that range, whereas determining individual autonomy requires an individual approach. Throughout chapter 4 I point out the limitations of various approaches to development to show that there is no clear way to define and assess capacity for autonomous action.

In chapter 5 I will look at a recent example of adolescent autonomy being tested by the courts. The case is that of FvF, where a 15 year old and an 11 year old girl were ordered by the courts to receive the MMR vaccine against their wishes. This example is very pertinent as it proves that liberty can and is overruled even for those almost reaching the legal age of

medical consent. I intend to use this case to show a practical example of the potential harm that may be done by overruling someone's ability to choose for themselves.

In this thesis I will show that the current approach to adolescent autonomy in New Zealand is insufficient to provide good consistent guidance to practitioners. I intend to highlight inconsistencies in current guidance, and use these inconsistencies as a starting point to go on to further discuss the appropriate place for adolescent autonomy in health care, and to show that this is an important contemporary issue. After establishing these things, I will use chapters 2 and 3 to provide a theoretical framework to help view autonomy. In doing so, I will show that autonomy should be given significant weight when deciding upon a specific treatment. After showing the importance of autonomy, I will discuss how to balance considerations of autonomy with other considerations such as well-being, and put forward the use of liberty as a means to this end.

By considering alternative approaches taken to development and the limitations they have, I will show that the scope of such approaches is limited. Further, that they do not adequately provide an explicit answer to the difficulties posed in attempting to define a point of autonomy. My main goal in highlighting the weaknesses of such approaches is to demonstrate that an approach based on conceptions of autonomy and well-being should not be disregarded or diminished in lieu of other approaches.

What this thesis sets out to show is that adolescent decision-making should be given far more consideration than it currently is. If there is the possibility of autonomous decision making then it is incumbent on health professionals to, where practical, investigate this possibility and respect autonomy if it is proven. Such an approach is justified as it prevents harm being done in overruling autonomous agents and provides the opportunity for achieving the greatest well-being over a population.

Chapter One: The Current Approach to Adolescents

This chapter will discuss competence and consent, and give an overview of how it is articulated in the Code of Patient Rights and the Care of Children Act 2004. ‘Gillick competency’ is an important concept that is relevant to deciding whether those under 16 years of age are competent enough to make their own decisions. This discussion will provide the context necessary for my later chapters, on whether we are correct and consistent in our treatment of mature minors.

The distinction between 'minors 'and 'adults' is important within our legal system, because minors and adults have different legal rights. While respect for the autonomy of an individual is a corner stone of liberal democracies, the autonomy of minors and adults is respected to differing extents. Adults are presumed to have decision making capacity sufficient for autonomous decision making, and the law reflects this by giving them the right to make decisions about their own health care. Minors, however, are considered to have less capacity and be less autonomous and therefore cannot make some decisions that adults can. Adults are afforded the right to refuse medical treatment, even when the result of refusal is likely to be death. Additionally, they have the right to consent to anything legally offered them within society, including consent to medical treatment more broadly. By contrast, minors are dependent on others to make decisions for them, and in most circumstances, this responsibility is given to the parents of the minor.

However, there are times when decision making rests with neither the minor nor the parents, but with the state, when it deems it necessary to claim the decision making responsibility for itself. For example: if the decision were life or death and the parents, for whatever reasons, choose death over life for their child, the state would likely intervene. This is sometimes the case when religious views impact upon the treatment of a minor. Jehovah Witnesses are opposed to blood transfusions. Historically, some have denied consent to their child receiving a blood transfusion, despite knowing that the likely result of such a choice is the death of the child. In this case the state has considered it justified to overrule the parent to protect the well-being and future of the child. Another example is when the parents are ruled to be incompetent and placing the child at a risk of abuse or neglect. In such cases, the child may become a ward of the state and be assigned a guardian tasked with acting in the child's best interests.

Though this important distinction between adults and minors is intuitive, and one we rely upon routinely in everyday life, the ethical and philosophical basis for it is not exactly clear. A common sense explanation would refer to difference in the degree of understanding between adults and minors. However, this only gets us so far, as it is by no means clear what level of understanding is sufficient to be considered “an adult”, nor does it provide us with a clear way with which to deal with marginal cases. While there is no debate over the status of very young children, for example a two year old, it is not clear at what age a person possesses the level of 'maturity' required to make the sort of decisions adults are presumed able to make. Nor is it clear that this development is consistent across individuals, or even that age can act as an accurate predictor of maturity.

The solution is usually to assign an arbitrary age at which all citizens attain the status of an adult, for example at the age of 16 or 18. New Zealand legislation produces a system like this in affording all people above the age of 16 the right to consent to or refuse medical treatment. However this is by no means a clearly defined line, as other areas of New Zealand law suggest a phased transition from minor to adult.

Consent

In common parlance, to give consent is to give permission for something to happen. In the context of bioethics it has a much deeper meaning. Consent, when used in medicine, is referring to what is often referred to as “informed consent” which is specifically related to giving your permission for a medical procedure. There is a risk that the process of gaining consent can become ritualised or legalistic and the standard forms that are filled out before surgery might be such an example. It can also be very casual or implicit, as in the case of a doctor taking a pulse without explicit resistance. What is common, however, is that consent is considered necessary for any procedure or intervention that is to be given to an autonomous adult. Gaining valid consent ensures that the procedure which will be undergone is done so with the patient’s permission, and theoretically shows that they have been able to make a choice as to how to be treated. But what is it that separates valid and invalid consent?

There are three components which must be present for consent to be considered valid. The consent must be voluntary, informed, and given by an individual with the capacity to give

consent in the first place(2). Considering each of these in turn, we can immediately see the need for consent to be voluntary. Voluntary consent ensures that the decision being made by an individual is really the decision which they themselves would like to make. An example of involuntariness invalidating consent familiar to anyone can be seen in robbery. If a man gives away his wallet because it is demanded at gun point, we might justifiably say he has chosen to give the wallet to his assailant. However, we would not be justified in saying he has done this voluntarily, as a requirement of a voluntary action is that it is done of one's own free will. In this case coercion, through threat of violence, makes this not an act of free will, but rather an act of self-preservation(3). Thus we cannot reasonably call this a valid transfer of property precisely because the involuntary nature of the transaction invalidated any consent that may have been given.

This clear cut example of a threat of physical violence is the extreme case for involuntary consent. However, as with most things there can be said to be a spectrum of voluntariness. If the would-be robber was un-armed, for example, it would not be unreasonable to say that their victim's decision could be considered more voluntary. Even further into unclear territory, we can consider the role that persuasion plays in voluntary decision making. If I were to have two options to choose from and I had been actively persuaded to choose one option over the other, my decision is arguably less voluntary than if I had been left to make the decision entirely on my own. This presents significant problems for medicine as it is hard to make the case that any decision can be made entirely free of external persuasion. Despite this difficulty in determining exactly where consent ceases to be voluntary, what is clear is that if consent is given involuntarily then it cannot be considered valid.

Next, for consent to be valid the subject must be informed. To say a subject is 'informed' is to say that they have been given enough information to make an autonomous decision. For a decision about a medical treatment this might include: details of the procedure, risks of procedure, likely outcomes, alternatives and why the procedure is necessary. A significant problem presents itself as it is not clear at which point we may consider someone to be sufficiently informed. The level to which one is informed is not, as the language would suggest, a binary distinction, rather, it is better understood as an analogue scale. This scale stretches from completely uninformed, as might be the case of a recently deceased person, to completely informed, as embodied by representations of an omniscient god. All living humans are then scattered between these two points, with humans of similar circumstances likely relatively close together. Therefore, to say that "being informed" is the point at

which a subject is able to make an autonomous decision may be completely true, however as autonomy cannot be measured and qualified it does not help us when trying to determine whether someone ought be considered informed or uninformed. This problem may be solved by taking the level of information required to be the level of information that would be required by an average adult. Indeed, as we will see further on in this chapter this is very similar to the approach taken by New Zealand law.

Competence

Competence is the third and final aspect required for valid consent. Competence is, broadly speaking, the ability to act rationally based in a given context. This broad approach to understanding competence is important, as competence is not something easily rigidly defined. However, other more specific definitions of competence are in common use, for example, Cole's Medical Practice in New Zealand defines competence, regardless of age, as an individual understanding: that there is a choice, why the 'treatment' is being offered, what the treatment involves, and the probable risks, benefits, side effects, failure rates and alternatives are. Both display the crucial role of understanding in competence and, as we will see further on in this chapter, it is around what constitutes sufficient understanding that much tension still exists.

To expand further on our original definition, it will be useful to make clear exactly what is meant by "acting rationally". To act rationally is to act in a way which is consistent with logic or reason, a statement which must itself be unpacked further. It is to take the information of a given situation and make decisions on a course of action so as to achieve a particular goal. It must be noted then that rationality, as so contrived here, attaches no value to the specific end. Whether the end be one that is commonly considered "good" or "bad" is of no consequence to its being considered rational. Rather, "rational" describes the internal process undertaken to achieve a certain goal. Applying this back to the idea of competence we can see that a competent person must be able to act in such a way that is capable of achieving a goal.

Now to put the three requirements of valid consent together to understand exactly what such an act signifies. The voluntariness of the action ensures that the decision is that of the individual and no other. The individual in question must be reasonably informed and so

possess enough of the details of the situation as to potentially understand it. Finally, the individual must be competent to use the information required to act in such a way to achieve some goal for themselves. Importantly, each of these three requirements relies on one or both of the other two to be considered possible. These three conditions for informed consent are reflected in The Code of Health and Disability Services Consumers' Rights(4). This common ground is important as it ensures the relevance of considerations of competence in the New Zealand health setting.

The Code of Patient Rights and The Care of Children Act

The Code of Health and Disability Services Consumers' Rights and the Care of Children Act are important for all health care practitioners in New Zealand and they have a bearing on how we should understand informed consent and minors. However, there are some inconsistencies within New Zealand law and I will highlight them in this section. These Acts deal with consent and competence and so give valuable insight into the approach to autonomy taken by the health profession and law within New Zealand. As we will see, age is not directly addressed in The Code of Health and Disability Services Consumers' Rights, which has led to a non-uniform application of the code. Interpretation of the Code has also been influenced by the Care of Children Act, which does specifically address age.

The Code of Health and Disability Services Consumers' Rights, or Code of Rights for short, was established in 1996. The code established the rights of consumers within the health system and the obligations of providers when interacting with consumers. For the purposes of the code, 'consumer' can be understood as anyone accessing or attempting to access health or disability services. Similarly, 'provider' is any health care or disability services provider. Any individual or organisation who provides health care within New Zealand is bound by the Code of Rights. Of the ten rights listed, only right 7 deals specifically with competence and consent.

> ***"RIGHT 7***
>
> ***Right to Make an Informed Choice and Give Informed Consent***
>
> *1) Services may be provided to a consumer only if that consumer makes an informed choice and gives informed consent, except where any enactment, or the common law, or any other provision of this Code provides otherwise.*

2) Every consumer must be presumed competent to make an informed choice and give informed consent, unless there are reasonable grounds for believing that the consumer is not competent.

3) Where a consumer has diminished competence, that consumer retains the right to make informed choices and give informed consent, to the extent appropriate to his or her level of competence..".(4)

The wording of Right 7 makes it clear that competence is required for someone to give informed consent, as consent cannot be valid without competence. As it is stated, Right 7 implies that a provider may only provide a service if the consumer is able to give informed consent. To provide services without valid informed consent is, therefore, illegal, and is considered tantamount to assault. This means that if a consumer is, for whatever reason, deemed to not be competent, then a provider is unable to legally provide them a service based solely on their preference.

Subsection two then goes on to cast a very wide net for competence, as every consumer is to be assumed competent, unless there are reasonable grounds for believing otherwise. Theoretically this applies to all people, including minors, and resultantly you might expect to see minors being tested for incompetence, rather than competence. However, practically, minors are not assumed to be competent and are required to demonstrate their competency to be viewed as such.

To more fully understand the Code of Patient Rights we must now turn to the Care of Children Act 2004. The Care of Children Act is important as there are several points in the Act which specify age boundaries.

"Consent to procedures generally

(1): A consent, or refusal to consent, to any of the following, if given by a child of or over the age of 16 years, has effect as if the child were of full age:

(a): any donation of blood by the child:

(b): any medical, surgical, or dental treatment or procedure (including a blood transfusion, which, in this section, has the meaning given to it by section 37(1)) to be carried out on the child for the child's benefit by a person professionally qualified to carry it out..."(5)

This status based approach to autonomy has two age based consequences: firstly, as is stated, any child of 16 years or over is granted ability to give or refuse to give consent as if they were an adult. This clearly sets an upper limit for non-competence such that anyone 16 years or above should be presumed autonomous to make medical decisions as an adult, or more precisely, a reasonable consumer. The second consequence is less explicit and

comes as a result of the first. In creating a clear line for the assumption of autonomy, the Care of Children act implies that people who have not yet crossed that line, at the very least, are not presumed to be autonomous. That suggests a plausible theoretical underpinning for assuming incompetence for those under the age of 16, and in doing so gives further support for questioning the wide net cast by the Code of Patient Rights.

The Code of Patient Rights recognises that everyone should be assumed competent unless there is good reason to think otherwise, and that this assumption of competency ought reasonably to extend to all consumers of health. However, as is tacitly supported in the Care of Children Act and reflected by common practice, being under 16 years of age is considered reasonable grounds for presuming the minor to be incompetent.

Gillick and the mature minor

In New Zealand legislation there is the possibility that those under the age of 16 are, while not presumed to be competent, assessable as such. However, that raises the issue of how to distinguish a non-competent minor from a competent one. This section discusses the case of Gillick vs. West Norfolk(6), upon which much of the current approach to child autonomy is based. During the Gillick case, the British Courts were forced to consider the balance between a parent's right to consent on behalf of their child and the child's right to consent for themselves. The legal tests used during these judgments are particularly relevant to how mature minors are assessed.

Mrs Victoria Gillick took her local health authority to court over what she perceived to be a breach of her parental rights. The alleged breach was over a flyer Mrs Gillick received, which implied it would be possible for her daughters to legally obtain contraception without her consent or knowledge. After receiving the flyer, Mrs Gillick sought assurances from the health authority that her children would not be given contraception without her permission. But in an official response, she was told by the health authority that they could provide no such promise. The result was that in 1982 Mrs Gillick turned to the courts in hopes of obtaining a ruling to the same effect. The case was initially dismissed by Justice Woolf in 1984, however this decision was reversed on appeal and in 1985 went to the House of Lords. After deliberation, the court upheld the original decision by Justice Woolf and the case was dismissed in part on the basis of Justice Woolf's argument that a child is able to give valid consent provided sufficient maturity and understanding for their specific case.

As is typical of a ruling from the House of Lords, there were several opinions given by a number of Law Lords who had considered the issues involved. Three of these opinions have influenced clinical practice and warrant examination. The opinions are those of Lord's Scarman, Fraser and Donaldson.

Lord Scarman's opinion was comprised of two key elements: the rationale for a child's right to consent, and a set of guidelines to assist clinicians in determining if a child could be considered competent. Lord Scarman proposed that parental rights diminish and a child obtains the understanding and maturity sufficient to give consent. Resultantly, parental rights to make decisions terminate "if and when the child achieves a sufficient understanding and intelligence... to understand fully what is proposed". At a basic level, this is Scarman's test, and is one way to interpret what is meant by Gillick competence(7). As it addresses the conflict between parental rights and child rights directly, the Scarman test can be widely applied when there is need to determine if a child has the ability to consent. An important feature of the rationale behind the Scarman test is that it views both competence and parental rights as changing gradually, running contrary to any suggestion of a status based approach.

A problem with the application of the Gillick test is that Lord Scarman qualified his requirement by saying that competency also required a full understanding of the moral, emotional, familial, short and long term consequences of the treatment. This qualification clearly makes the test far harder to pass than is ordinarily the case for adults and has drawn criticism for putting the threshold of competency too high. As has been discussed in the previous section, the level of competence deemed sufficient for a given discussion is that of the reasonable consumer. If a test for competence is so difficult to pass that average members of the adult population cannot pass it then, by definition, it fails to accurately test competence. Despite the critiques of the test itself, if a minor of any age does pass the Gillick test for a given decision, they are granted more power to consent than if they had not passed the Gillick test. For the purposes of this thesis, a minor who passes the Gillick test is a 'mature minor'. However, as will be discussed further on in this section, even a mature minor has less power over their medical decisions than an adult.

Next let us consider the opinion of Lord Fraser, who spoke specifically about the issue of providing contraceptives to girls under the age of consent, and, like Scarman, provided a set of guidelines, which have become widely known as the Fraser guidelines. However, it

is not implausible that some would consider Lord Frasers opinion as constituting the test for Gillick competency. The Fraser guidelines seem to have a lower threshold for understanding than the Scarman test, requiring only "that the girl ... will understand his [the health professionals] advice". However, unlike Scarman, Fraser emphasised the need of the health professional to factor considerations about best interests into their decision making. Of particular importance to Lord Fraser was the welfare of those girls who were likely to continue to engage in sexual relations regardless of their ability to gain contraceptive means and the risk which such a situation poses. Fraser, like Scarman, also put a heavy emphasis on the desirability of parental involvement, suggesting health professionals should always attempt to persuade the minors to involve their parents.

As innocuous as it may seem, the introduction of a welfare consideration is an extremely significant one. The two opinions of Scarman and Fraser show the significant difference in the rationale used by the two Lords. Scarman was arguing for the rights of a mature minor as an autonomous being. Whereas Fraser, with his emphasis on best interests, gives greater discretion to the health professional. Indeed, it may be argued that Frasers approach largely shifts decision making power from the parent to the health professional, rather than from parent to child. Even so, there is still the requirement of understanding the health professional’s advice to consider. It seems that in Fraser's approach, understanding is necessary, but not sufficient to be allowed access to medical interventions. Rather, it is best interests which ultimately dictate the correct course of actions.

The Gillick test and Fraser guidelines have provided useful guidance to health professions since their creation, but have also introduced significant confusion. The question of which set of guidelines to use, and under what circumstances, has not become clearer over time. The guidelines are different in both rationale and requirements and have both been applied to situations outside of the context they were initially created for. There is a real danger here, as for the same decision a minor may be competent under one set of guidelines, and incompetent under the other.

Finally, the opinion of Lord Donaldson, who spoke regarding refusal of treatment for minors. He surmised that "[consent] protects the [health professional] from claims by the litigious", as to perform treatment without consent would be considered assault under common law. The question then arises of who can give valid consent in the case of a mature minor? The minor can consent for themselves, provided competency has been

proven. But the parent is also able to consent on behalf of the child and provide the necessary 'protection' for a health professional to give treatment without fear of legal recourse. This produces an asymmetry, where mature minors are able to give consent to treatments, but not necessarily able to refuse treatment. Again there is a contrast between the rationale used by Lord Donaldson and that of Fraser and Scarman. Under Scarman's rationale it does not seem to be reasonable to afford the right to consent, but not the right to refuse treatment.

So then what is Gillick competence? It seems from the discussion so far that what exactly constitutes Gillick competence is not one thing. Whether you take Lord Scarman's test for competence or Lord Fraser's, both fundamentally seek to settle the question of who should have the power to decide on a particular course of action in a particular situation.

As we have seen in this section, separate from the difficulty of the way you describe competence there also arises an issue with how to test it. The difference in approach taken by the judges suggesting, at the least, inconsistency in the approach to adolescent autonomy. In chapter two I will consider the ethical underpinnings of the mature minor standard and develop concepts relevant to how the health profession should structure its interactions with adolescents.

Chapter Two: the ethical foundations of the mature minor standard

I explained in Chapter One how the law is unclear with respect to mature minors, and how the most influential common law case includes more than one test. This is troublesome because of the importance usually given to the autonomy of an individual. Finding a way forward with how we should approach decision making and mature minors involves considering why it is that we attach the significance to autonomy that we do.

Many people, if asked, would defend the importance of their own expression of autonomy. These same people, however, would also be likely to defend the restriction of the autonomy of others if deemed necessary, for example if that person has committed a crime and is a danger to other people.

It's useful to distinguish between autonomy and liberty and attempt to clearly explain both. Once I have drawn this distinction, I will consider the value of autonomous decision making and ultimately argue that autonomous agents should be at liberty to make their own decisions for themselves.

Autonomy

Autonomy and liberty are sometimes used interchangeably, but it is important and useful to distinguish them. In this section I will explain the basic meaning of autonomy, and some of the ways that it can be understood. There are a number of definitions and some of them include attributes such as critical reflection, self-assertion, and some even defining autonomy simply as liberty(8). Despite the various definitions of autonomy, there are some important differences between it and liberty that necessitate distinguishing these terms.

A good place to start in understanding autonomy is to look at the etymological meaning of the word. It comes from the Greek word "auto" and "-nomos", which mean self and law respectively(9). This implies that to be autonomous is to be a 'law unto oneself'. But what exactly does this mean? At a societal level, when a group declares that it ought to be able to work autonomously, what is typically meant is that they should to be able to govern themselves, i.e. create their own rules and regulations, enforcement processes, and so on.

Applying this model to the individual, suggests that being autonomous means having the capacity for self governance. This means that any external restriction of one's self-governance would be a restriction of autonomy.

If autonomy is restricted by the presence of external restrictions it seems to follow that a degree of self determination is necessary for the expression of autonomy. Without self determination an agent cannot act in accordance with their self-given law and will therefore be less capable of acting autonomously. For example, some parents can be very controlling about who their children socialise with and where they go. Suppose that Aaron is born into a conservative Christian household and his parents have decided that he can only socialise with other Christian children. Assuming the parents are able to control Aaron's life to a significant degree, this introduces an external restriction upon who Aaron is able to socialise with, and therefore restricts his ability to act autonomously.

Autonomy as 'self-rule' implies that we can act on considerations which are potentially law like. Feeling a desire and acting upon it seems like acting freely in one sense, in that we act without constraint. However, desires are impulses, and don't have the rule-like nature that laws do. So, when viewed from a Kantian lens, being free to act on a desire is not enough to be considered to be acting autonomously(10). Being autonomous involves acting of law like considerations, such as deliberations about what would be best to do, or reasons that could be offered as justifications for what we choose to do. While acting on desires doesn't seem enough for 'autonomy', note that being free to act upon desire does seem like a clear case of 'being free' or 'at liberty' to act.

What autonomy really is can still be contested. However, that should not prevent us from discussing autonomy more broadly, especially those aspects that are less controversial. Much of our modern understanding of autonomy comes from the works of Kant. Kant formulated two distinctly different points of view an agent can take when analysing the world, the theoretical and the practical(11). One may take the theoretical point of view, which is used to understand the nature of reality enabling us to make predictions about the effect produced by a given cause. For example, scientific theories demonstrate of the world represented from the theoretical point of view. We can then use this information to make predictions about what effects will be produced from specific causes.

From the practical point of view we consider all of the facts and considerations relevant to the decision at hand. However, the deliberative process associated with the practical point

of view is not itself inherently action guiding. We must still make judgements about what to attach significance to and thus, judge for ourselves what we have reason to do.(12)

Autonomy, then, is a feature of that individual agent, as it relates to living by self generated laws. An autonomous decision must be one where the subjects self-generated laws ultimately inform their course of action. If it were not their self given laws that precipitated their decision we could not rightly call the decision autonomous. There are many circumstances in which external factors can take away an otherwise autonomous individual's ability to act autonomously. Take the use of external coercion and its effect on the ability to act in accordance with one's own laws in the following example. Mr B has made a promise to Ms C to protect her jewellery by putting it in his safe. Mr B believes that people ought to keep their promises and so is committed to protecting Ms C's jewellery. One night a burglar armed with a knife breaks into Mr B's home and threatens to kill Mr B if he does not open the safe. Mr B now has a very strong incentive to go against his self-generated laws and break his promise to Ms C. In this way we can see that external forces are clearly limiting the agent's ability to act in accordance with their own laws, thus limiting the capacity for autonomous action.

Understanding how liberty is different from autonomy is best explored by considering the relationship of liberty to well-being and freedom of expression. The next section explains what well-being is and shows how it is relevant to liberty and mature minors.

Well-being

The Hippocratic Oath requires physicians to pay heed to beneficence and non-maleficence(13, 14). Beneficence can be simply understood as an imperative to do good for those around you, while non-maleficence is to not do harm to others. However, what it is to "do good" for a person is not a simple thing to define. Different things are good for different people, and what is a good for one may be a harm to another. In order to compare such inter-subjective goods we can use the concept of well-being, where to do good for someone is to increase that person's well-being.

When I use the term 'well-being' I am referring to the things that make a person's life good for them. To increase well-being is to make a person's life better for them, and to decrease it is to make life worse. We can see a focus on well-being from the medical profession in

the idea of best interests. That is to say that a particular course of action is in somebody's best interest if it could reasonably be considered to mean such an action will increase that person's well-being. In this way, well-being has always been an idea intimately connected with medical practice and thus it provides a useful conceptual tool to allow the merits of various approaches to medical practice to be compared. A more meritorious system would be one that better promoted well-being. However, there are a number of questions raised here. Are there relevant considerations outside of well-being? How do we best promote well-being? What is it that comprises well-being? These questions are important, but are outside of the scope of this discussion. It is enough for our purpose to say that well-being is a relevant consideration.

The concept of 'well-being' as so far described is closely related to a series of other similar concepts. Although fine distinctions may be made, I am taking the term "well-being" to be equivalent with concepts such as welfare, self-interest, flourishing, utility etc.(15) To give a clear picture of exactly what is meant by well-being I will use the World Health Organisation (WHO) definition:

> *"well-being: A dynamic state of physical, mental and social wellness; a way of life which equips the individual to realize the full potential of his/her capabilities and to overcome and compensate for weaknesses; a lifestyle which recognizes the importance of nutrition, physical fitness, stress reduction, and self responsibility. Well-being has been viewed as the result of four key factors over which an individual has varying degrees of control: human biology, social and physical environment, health care organization (system), and lifestyle."(16)*

This definition of well-being is very general and seeks to capture all aspects of life which can be said to be good or bad for a particular person. It should be briefly mentioned that while "spiritual health" is not explicitly mentioned in the definition, it can be understood as an aspect of mental health. This means spiritual health should be a relevant factor when considering aspects of well-being.

Individual expression

The value of individual expression is important and relevant to wellbeing and liberty. For my discussion I shall consider its value only in the context of its effects on well-being and liberty as discussed above. This section examines self-expression in two main ways: the value of individual expression itself to well-being, and the practical necessity of respecting individual expression.

So, I will first consider the value that individual expression may have to the betterment of well-being. As discussed in the section regarding autonomy, people differ on how to weigh the significance of different considerations in their lives. The result of this is that what acts to increase the well-being of one person will be different to that of another. In being able to freely pursue their own personal objects of well-being, each individual is best able to increase their own well-being. This is not to suggest that everyone should be completely free to pursue any end they wish. As will be discussed in the following section, 'Liberty' we must restrict some forms of action, particularly when their object is to harm another person. However, it is to say that to the individual agent, being able to act in accordance with their own self-generated laws is more likely to result in an increase in well-being than if they were not.

Then there is the value that individual expression has for those other than the person acting. This is the value that results from having a diverse range of views and ways of being. This can be seen as having practical value for a number of reasons. Firstly, there is value in that the more diversity of thought there is in a given group, the higher the chances of solving a problem which the group might face. This is analogous with genetically identical colonies of bacteria, if a problem faces the group which one is not able to handle, all will perish. However, when there is a diversity throughout the colony it increases the chances of flourishing under a variety of circumstances.

Next there is the value of allowing people to achieve their greatest potential. This is similar to a line of argument taken by Plato in *The Republic(17)*, where Plato argues that each person has a unique set of strengths that make them most suitable for a particular task. While we are not concerned with fitting people to fill roles in the same way as Plato was, there is something to be said about this line of thinking, particularly the notion that each person has a set of potentialities which is unique to them for merit of their skills and interests and that there is value in allowing these to flourish. To this end, it seems that individual expression allows for the greatest development of potential by allowing people to identify their own areas of interest and working to achieve their own chosen ends.

So far we have been discussing what I described as the value of individual expression itself. Now we shall turn to the practical necessity of respecting individual expression. This relates not to the value of respecting individual expression but of the problems faced in trying to do otherwise. First off, we return to the problem raised by the individualist nature

of how we value things as a result of our autonomous agency. The problem is that I cannot presume what is right or wrong for you. Even a well intentioned attempt on my part to decide for others what is best for them will likely result in sub-optimal outcomes, as I am fallible when it comes to knowing what is best for another person. I may be able to get very close, but there is a significant risk I will get it wrong. While there is certainly still a risk of sub-optimal outcomes in allowing an autonomous agent to choose for themselves. But this risk is reduced as the individual is best poised to know what is the best course of action for them.

The other practical issue is that to force someone to do other than their own will cause harm. Normally when a person acts, we can presume they do so because they believe that acting so is in their best interests. It may be that they are obviously mistaken in some way, in which case one may give them a previously unknown piece of information and change their course of action. But in cases where the person is determined to continue with their course of action, forcing them to do otherwise will result in some form of harm. This means that someone must be deviating significantly from their own best interests before interference for the sake of preventing harm can be justified. It is even harder to justify when considering the improbability that the interfering party is able to accurately gauge what their best interest truly is.

With this in mind, we move on now to discuss liberty as a means of allowing individual expression while acknowledging and addressing the problem of people who might wish to work against the interests of others.

Liberty

Liberty serves as both a mechanism for individual self-expression and a means to prevent harm. This section considers a number of questions important to a discussion of liberty while also considering well-being. How can we define liberties so that they are right and just? What is meant by interference when one acts outside of the scope of liberty?

To be "at liberty" can be understood as meaning a state of being free. This immediately begs the question, free from what, or whom? Freedom here is the freedom of an individual agent to act without the interference or threat of interference from other agents. For example, if I am at liberty to walk on a footpath, I am free to walk on that footpath without other people attempting to stop me. On the other hand, I am not at liberty to drive a car

without a seat belt on. So if I attempt to drive without a seatbelt I may be interfered with. What does interference mean in this case?

Liberty, thus formulated, splits all actions into one of two categories. Actions which citizens are free to do and actions which citizens are not. If a citizen were to act within the scope of liberty they should expect no interference from society. However, if a citizen were to act outside of the scope of liberty, then society is justified in using its power against that person. Indeed, a virtuous society would be one in which people felt compelled to intervene whenever a citizen acted in such a way(18).

How can we decide the actions a person should be at liberty to do and those they should not. It seems that as liberty is related to inter-subjective interaction, it is fundamentally a social concept. Liberties are not then absolute, but rather socially defined. As evidence of this, what an agent is or is not at liberty to do changes from society to society, group to group and over time. For example, people were once not at liberty to speak Māori in New Zealand schools, and could be punished if they spoke Māori. This example is instructive, as it shows that what one is at liberty to do may not always be based on what we might today consider right or just. Indeed, there are many societies in history where prohibitions were draconian, or where the distribution of liberties was unequal.

In his essay "On Liberty", John Stuart Mill attempts to justify a qualified liberty which he believed could define moral human interaction. His goal was to create a comprehensive description of:

> *"...the nature and limits of the power which can be legitimately exercised by society over the individual."(18)*

There are several important concepts in this sentence which require consideration and will help guide the discussion going forward. In the order we shall consider them, these are: the individual, society, the nature and limits of power and legitimacy.

To start then, what is meant by "the individual"? For this discussion I take it to refer to the autonomous agent discussed above. One who is able to take in information and act upon it in accordance with their own self-made laws. In the rest of this section I shall discuss society, power, and legitimacy, so as to more clearly understand what Mill is advocating.

Society

Here we are attempting to understand the different ways that the "society" referred to by Mill can affect the individual. What exactly is meant by society is unclear, but I suggest that it is best considered as having two meanings which each work simultaneously at different levels. First, there is society as an abstract term for a collection of people living together as a community. In this case, society can be thought of as taking on a persona of its own. We can begin to talk about what is good or bad for a society or to discuss a society's wants or needs.

Consequentially, the exact make up of a society can change over time. People may be born, die or simply cease to identify with, or be identified with, that society. However, when considering society as a group of people living together as individuals, it is not necessary for the continued existence of a society that the people within it remain the same. Consider for example a sports team. Players routinely leave and are replaced while leaving the sports team as a whole ultimately intact. This comparison has its limits. If a football team was entirely replaced, or began to play another sport, one could reasonably say that the team has essentially changed and is thus distinct from the former team. However, this is not the case when we consider society at large where replacement occurs at a relatively slow and steady rate as people are born and die.

Importantly, society so contrived ceases to be limited in life span in the same way an individual is. Over time, societies develop customs and laws which may not be universally agreed upon at the individual level, but on wider analysis accurately represent the views of 'society'. In societies with democratically elected governments these laws are, in theory, decided through some form of democratic process through which the people voice their views. These laws will persist in society through time despite every person who once agreed to be regulated by these laws dying unless they are explicitly changed. This is then what is meant by society in the first instance.

The second meaning of society refers to the actual numerous individuals that constitute a community of people, each acting as their own independent agent. When we refer to the individual in this case, we are referring to any given individual and making the distinction in that one person between the self and the non-self. So then, how do the numerous individuals acting independently affect one individual? Mill referred to the power of such individuals as the "social sanction". By this he was referring to the numerous ways in

which people might individually act against a person based entirely on their own judgements. For example, being considered trust-worthy is a good thing, because if you give your word you will be more likely to be believed. However, if you were to begin to lie repeatedly you would likely quickly lose such a reputation and become known as untrustworthy. Being considered a trustworthy person has benefits in that people will put their trust in you. While in many cases there is no law against lying, there is a penalty in the sense that you have come to be considered untrustworthy. This is what is meant by the social sanction.

Mill believed that the social sanction is able to shape society in a similar way that society's laws do. Mill called the way that societies enforce a set of social sanctions 'customs'. The social sanction and the actions of individuals more broadly are the way that customs exert their power over the individual in society. As customs reinforce normative views within a society it can be seen how even when acting as individual agents, people from the same culture will react the same way to many actions.

Clearly the two conceptions of society are related and play into each other. A society in the first sense helps to shape individuals and, as can be clearly seen across different cultures, produces predictably different individuals. However, individuals when acting together can change society and thus exert their control. This view has many potential objections for this conceptualisation of society: can people be independent of their society at all? Is it reasonable to view people's natural reactions as a form of sanction or punishment? The scope of what Mill is referring to by 'society' goes significantly further than simply the state or to those immediately around a person. Rather it is to both groups that Mill is directing his appeal and so all must be considered for the sake of completeness.

The nature and limits of power

What powers can legitimately be used against an individual? This question creates a definitional issue of what is meant by "power". When I use the word power I mean the ability to bring about an outcome. For example, sitting at my desk now I have the power to stand up and go into the kitchen. However, if I were tied to my desk and could not act in any way to free myself then I would not have the power to go to the kitchen.

Now to consider the different ways power may be used to influence the actions of an otherwise autonomous agent. It is important to note that the discussion here is interested

only in situations where society, as previously defined, is attempting to use power against an individual. I shall consider this power as taking four forms: compulsion, coercion, manipulation and persuasion(19).

Compulsion is the use of physical force to make someone do something. For example when a 4 year old goes to the doctor for their immunisations, it can sometimes be necessary to physically restrain the child in order to safely ensure they receive their vaccinations. Compulsion almost completely removes any chance of autonomous action. So then if we are to think of power in terms of its effects on autonomy, compulsion sits atop the hierarchy of powers and thus makes it use hardest to justify in terms of liberty.

Next there is coercion, which should be understood as a kind of conditional proposal. The most common form of coercion is a threat. Coercive threats involve saying that something negative will be brought about for a person unless they do what they are asked to. Coercion can include the can include the threat of force. However, generally if force is actually used then it is no longer said to be coercion, as the victim has either failed to be coerced or they are now being compelled. Capitulation after being subjected to force because of the fear of future force should still be considered coercion. Threats are generally considered coercive, but it in some situations an offer can also be considered coercive(3). Offers are different in that they involve saying something positive will be brought about for a person if they do what they are told.

Coercive threats and offers have a similarity in that they are both conditional proposals which are used by one individual to produce a particular behaviour in another. However, this is not to say they are morally equivalent. The significant difference between threats and offers can be seen when considering the outcome if each is declined. The basis of a threat is a promise to do something undesirable if the recipient of the threat does not act in a certain way. It is reasonable to say that if the threat is effectively followed through on then the victim will be harmed. Further, if the action was one they would have done anyway then there would have been no need for the threat. Therefore the coerced course of action will either be one which harms the victim or at the least makes it impossible for them to do what is best for their own well-being. Once the threat has been made, capitulation may well be the course of action which is best for well-being, but only because all other options now have a risk associated with them.

In contrast, offers involve the promise of some good that will come if the individual to whom the offer is made meet the requirements put upon them. Importantly, if one were to decline an offer, one would not expect to be any worse off than if the offer had never been made at all. This is the critical point of difference between the two; a threat attempts to chance behaviour by disincentivizing all but select courses of action, whereas an offer attempts to change behaviour by incentivising only some courses of action.

Both threats and offers can be coercive, in that they both use conditional proposals as a way to use power to achieve a specific outcome. However, due to the difference outlined above they should be considered differently. Threats necessarily involve harm whereas offers do not. Importantly, a threat acts as a greater threat to autonomy, as once a person has been threatened there is no option to continue on as if they had not been threatened, which one can do with an offer. So then, coercion should not be thought of as one uniform category, but as distinguished into threats and offers. Threats will tend to be more of a threat to autonomy than offers within our discussion due to their influence on autonomous decision making. Offers are morally questionable, but as in similar circumstances they have a lesser effect on autonomy, they are less important within our discussion. Considering again the idea of a hierarchy of powers, threats are closer to compulsion, whereas offers are more akin to persuasion, which shall be discussed below.

Next there is the use of manipulation to control someone's actions. This form of power relies on controlling an individual's experience in order to give them false impressions or ideas about the context of an action, the action itself or its consequences. Among other things, manipulation includes lying, selective removal of information and the presentation of information. Importantly, manipulation requires intent on the behalf of the manipulator. This does not have to be as explicit as "I will manipulate", but rather involves attempting to achieve an outcome through indirect control. For instance one could manipulate by not giving all the information which is available, instead only providing certain information which the manipulator believes will influence decision making.

This can be seen in the control of information, where the information a person is subjected to is selected so as to give a false impression with the intent of influencing that persons decision. The subject’s reaction to this contrived information may be completely voluntary, but it influences their actions as it forces them to react to a false impression of reality which has been intentionally presented to them to elicit their otherwise genuine

reactions. Manipulation does not include mistaken information, so if I were to tell a friend that they should buy a product because of some quality I mistakenly believe it to have, that should not be considered manipulation.

The final form of power in our categorisation is that of persuasion. To persuade is to induce a certain belief or path of action in a person by convincing them of its value. Viewed in this way it is clear that we are right to include persuasion as a form of power alongside compulsion, coercion and manipulation, although we need to distinguish some important differences. Unlike other forms of force, persuasion produces a response which can reasonably be called voluntary and informed. The person being persuaded ultimately must decide for themselves if the arguments being offered are convincing and fit into their system of self-governance.

There is a risk that persuasion and certain forms of manipulation could be seen to have some overlap, so need to be clearly distinguished. Consider a person who is trying to manipulate. As in the case of persuasion this person can deploy arguments to aide in their manipulation. The fundamental distinction is in the genuineness of the person who is employing the argument. In the case of manipulation there will always be, either consciously or unconsciously, a dishonest element to the argument. This may be in the way the information is presented, or it may be in the way the information is delivered. Importantly, the information does not need to be false (although intentional falsities are also a form of manipulation.) For example, let's say I were at a car dealership and asked the car salesperson to help me choose between a Holden and a Audi, which, for the sake of argument, were exactly the same. Imagine the salesperson, for whatever reason and without my knowledge, wanted me to buy the Holden. He might try to convince me to buy the Holden by telling me all of the good qualities of the Holden, while only telling me about the negative qualities of the Audi. The salesperson has never given me any false information but I am clearly going to be influenced to buy the Holden over the Audi.

Persuasion, on the other hand, is different. Persuasion involves a balanced consideration of information and requires that the person forwarding the argument believes in what they are saying. There may be elements of the argument which are false, but so long as these are unintentional they do not qualify it as manipulation. Persuasion should still be considered a form of power, as its intent is to create a certain action. At the level of attempting to persuade someone over a subjective matter, one autonomous agent is trying to convince

the other that their way of perceiving the subjective is in some way superior. However, as persuasion involves the genuine presentation, it does seem to be a relatively benign form of power and indeed, one that is used often in everyday life.

An option for potentially changing behaviour in a way which is collaborative and empowering in all situations is education without attaching value to the information. This I will call pure education, the information being, in so far as is possible, detached from the educator. In order that this style of communication be preferable, we rely on the assumption that people, if fully informed and left to make voluntary, autonomous decisions, will produce a greater well-being than other systems using other methods. This shall be discussed in the last two sections of this chapter, but it is worth noting now that this would necessarily be different for non-autonomous agents.

It is important to note that the use of power is not always unjustified and can be preferable, as has been alluded to in the discussion thus far. In this section I discussed the different forms that power can have to provide a clearer understanding of the ways in which one person can influence another. Having considered these forms of power, I shall now consider when the use of power is justified.

The legitimacy of power

In this section we will look at when the use of power against an individual may be justified. The central idea here is not that power may not be used illegitimately, it most certainly can, but to discuss how we might restrain the use of power solely to situations where its use it legitimate or just.

Mill conceived a system which could be used to assess whether the use of power is justified. This Mill referred to as the "harm principle" and claimed it was the single principle required to tell a just use of power from an unjust. That principle is as follows:

> *"The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others"(18)*

Mill claims that to use power against another individual is only justified when that action may cause harm to another person. By inference, this extends the scope of liberty to contain any actions which do not cause to harm to others. It is interesting to note that harming one's self is not seen as sufficient justification for overruling an individual's liberty. Mill believed that this one principle was capable of governing the interaction

between free people. However, even among those that agree on the validity of the harm principle in essence, there is the potential for significant disagreement on application based around what constitutes harm.

Harm can be thought of in the very narrow terms of physical injury to another person. However when considered this way there are many damaging interpersonal interactions which are not covered under the definition of harm, psychological abuse being only one of them. Mill uses the notion of harm widely in *On Liberty* to describe a variety of situations which may be interfered with(15). In the context of Mill, it is best to think of harm as being something which reduces well-being, or goes against someone's best interests. This affords a much broader range of harms to consider.

One thing we must consider is whether someone who does not experience any harm can be reasonably considered to have been harmed. It seems that a requirement of harm is that it can be seen to demonstrably decrease well-being. If this is the case then it does not seem plausible to claim that there can be unknown harm. This is not to say one can be harmed without knowing its source or cause. But rather, that if one does not experience a reduction in well-being then they cannot be said to have been harmed. An instructive example of this can be seen in a February 2018 health controversy in New Zealand. Over the course of 5 years, 5900 patients across five New Zealand hospitals who received artificial heart valves were inadvertently exposed to the risk of infection from contaminated equipment(20). The exposure was the result of an overlooked aspect of a blood heater-cooler used to maintain blood temperature while on bypass. The result of this was a one in five thousand risk of a serious infection of the heart valves.

After realizing the situation, the New Zealand Ministry of Health sent out letters to all of the patients who were potentially affected to inform them of what had occurred. Now, where does harm come into this situation? For my discussion I shall put the one sick person to the side and focus on the remaining four-thousand nine-hundred and ninety-nine. While most people will not develop a health issue, there is no way to know who specifically will develop the heart infection. The letter, then, informs people of a risk to their health that they were subjected to unwillingly and unknowingly. On receiving such information a person could conceivably feel many negative emotions, such as uncertainty, fear, and helplessness just to name a few. Resultantly, it is plausible to say that finding out you have been exposed to a risk in this way can be experienced as harm.

Now we come to the key question, at what point did the harm occur? What if the contamination had never been discovered and all those people who would never have developed disease had not been informed of the risk? The outcome of their operations would not have changed. Their health would not have been effected. They would never have experienced any of the negatives associated with knowledge of the risk to them. In such a situation is there anything which can be identified as constituting a harm? I would say that as they never experienced harm they cannot be said to have been harmed; the harm requirement.

This example raises another important question about harm. Does harm refer to some objective harm, or is it enough that someone believes they are harmed? Due to the individualist nature of well-being it seems that the belief that harm has been done is at least relevant to our conversation. If the well-being of Ms A is reduced due to the actions of Mr B it seems reasonable to say that Mr B's action has harmed Ms A. Furthermore, as the agent responsible for his action, it follows that Mr B has caused harm to Ms A, whether it was intentional or not. However, as identified by Roger Crisp, Mill does not mean to say that in all cases of harm the violation of liberty is justified. Rather, Mill argues that harm is a necessary condition which must be met before any encroach onto liberty may be made. (15)

> *"[I]t must by no means be supposed, because damage, or probability of damage, to the interests of others, can alone justify the interference of society, that therefore it always does justify such an interference. In many cases, an individual, in pursuing a legitimate object, necessarily and therefore legitimately causes pain or loss to others." (18)*

It is important to note that Mill's claim ultimately rests upon utilitarianism, which for the purposes of this thesis can be best understood as the belief that a morally good action is that action which maximises well-being(18). All of the ideas Mill proposes are then intended as a means to achieve the greatest well-being. In the case of justifying the use of power against an individual, Mill is trying to weigh harm against the harm of interfering with another person's autonomous action. This rests on the idea discussed above that in stopping people from following their own chosen path we are naturally required to do them some form of harm.

Mill uses the example of competitive examination to illustrate one instance of what we might call justifiable harm. Consider a medical entry exam where the students are competing for a limited number of places within the course, and so some number of them

will not be accepted. For the sake of simplicity, say that there are two medical students both vying for one place. If, then, it is the goal of each of the medical students to get into medicine, we can assume that success will increase their well-being and failure will decrease it. Then, this being the case, Mill claims that for one to succeed he must harm the other, for to do so is to cause the other to fail. Here Mill claims that this sort of harm must be allowed as it is in a sense unavoidable. It is procedural harm which must occur in order to have the change of good occurring.

As we have seen in this section, while harm may be a reasonable limit condition on intervention in theory, in practice it is not immediately obvious how to apply it in all situations. In the next section I will discuss one approach for considering how we can use harm as a means to set limits to liberty.

This chapter has described the ethical concepts that underpin decision making and mature minors. What remains to be done is to show how these considerations should be balanced, and that is my task in chapter three.

Chapter Three: balancing liberty, well-being and autonomy

In Chapter Two I explained three concepts that underpin decision making and mature minors: autonomy, well-being and liberty. All three of these concepts are important when considering how adolescents should be treated within the health care system. I have highlighted key elements of each of these concepts to explain the role they play. In this chapter I will discuss these concepts in the light of each other and attempt to provide some explanation of how we can balance them.

To help understand this, I will consider and develop Mill's idea of the self-regarding sphere of human action(15, 18). The self-regarding sphere can be split into two components: things which affect only the self and things which do not. Mill claimed that things which effected only the self were never suitable candidates for interference as they, by definition, involve only the individual themselves. Such actions include bathing in a private bathroom or such activities as thinking. From my discussion thus far this seems to be right. If I wish to act autonomously in a way which will affect no one but myself, I should be at liberty to do so, as to prevent me from doing so is to unjustifiably cause me harm.

There are also actions that are within the self-regarding sphere which also influence others, some of which can be described as matters of taste. This is particularly relevant to social interaction generally and includes such things as: speech, freedom, expression, sexuality, religion and so on, all of which are themselves examples of individual expression. In any example, there will be an agent who is acting and someone who observes their action. Where there is conflict, the conflict is between one person’s taste in expression and another's distaste, disgust or offence at their expression. For example, some religious groups have firmly held moral positions on homosexuality, some going as far as to call for the criminalisation of homosexual relationships. But does offence count as harm? As discussed above, harm is highly subjective and the offence that some people can feel in relation to sexuality can be intense. It does then seem to be consistent with what has been said already that this offence can be considered a form of harm. However, as has been pointed out, being considered harm is not in itself enough to justify its criminalisation.

A real world example of this can be seen in a 2018 controversy in New Zealand about an article published in the National Business Review(21). Sir Bob Jones, a contributor to the publication, wrote an article which contained content relating to Waitangi Day and the Maori people which some found offensive. Sir Jones claims that the article was satire, meant to inspire conversation rather than offend anyone. However, many people did find the contents offensive, with one local film maker labelling the article hate speech and starting a petition to have his knighthood removed. Hate speech is a form of speech which some claim is not covered under free speech. Advocates of free speech believe that anything protected under the label of free speech should face no penalty. However some argue that hate speech falls outside these borders and that anything which constitutes hate speech should be condemned as morally or legally wrong for merit of being said.

So to attempt to solve this problem, let us consider well-being, both that of the actor and the offended party. For this example I am considering only the objection to the article based on taste: something that is by nature subjective. Assume that regardless of the outcome, one of the two parties will experience harm. If the speaker is left free to speak, the offended party will have been harmed without recourse. But if the speaker is censored then it is the speaker who will have been harmed. To take these two scenarios in turn, let us first consider the liberty of self-expression and then prohibition based on taste.

If the speaker is left to speak freely, then the offended party will be harmed by hearing what they consider to be distasteful. The speaker, on the other hand, will either have their well-being unchanged as they are able to continue to act as they wish, or their well-being increased through the value of individual expression. In the context of the above example this would be to reject the claim that Sir Jones is at fault for what he wrote. It would require a defence of his right to say what he said, free from both legal and social consequences.

Now to consider the opposite, prohibition based on taste. In this case it is the speaker who will be harmed but not in the same way as in the first scenario. First off, they will not be able to express themselves which will either do them harm or fail to do them good. In the case of Sir Jones, he would not be able to express his views. The use of power to prevent action introduces a new form of harm. Practically this includes the harm introduced by enforcement. But aside from this there is the fact that in this case someone must be prevented from expression.

In the case of the offended party, no one is using power to force them to be offended. This difference is a difference in restriction of expression. If the speaker is allowed to speak without restriction, there is no restriction on expression. Sir Jones is able to express himself, and his opponents are able to voice their offense expressing themselves. However, if the speaker is restricted to prevent any potential offense that may be caused to others, then expression is restricted.

After considering the issue in this way it is plausible to suggest that to attempt to prohibit self-expression on the grounds of taste alone will do more harm than good and, therefore, it is preferable that individual expression be considered within the scope of liberty. This, it should be understood, is only speaking on restriction on the basis of taste. There are many examples where the claimed harm of speech is not simply a matter of personal offence. One example is extreme forms of supremacy. If a person makes a speech declaring a group of people inferior for merit of their race, there are very plausible arguments that there is a less direct, systemic form of harm that is being done.

This example is instructive as it deals with conflicts which are very subtle and therefore have greater room for disagreement. One could apply this style of thinking to any number of examples e.g. murder, rape, fraud, assault, etc. However it does not seem necessary to argue that one's desire to murder does not outweigh someone else's desire not to be murdered.

Paternalism

When a person presents in hospital and requires treatment, a decision must be made as to what that treatment will be. For adults in the New Zealand medical system, that choice is typically made by the person who is to undergo treatment, rather than by a doctor or some other person. While there are other important considerations, the promotion of well-being is undoubtedly an important aim for a health care system. So what constitutes the "best" decision for any situation can reasonably be assumed to have well-being as a part of it.

Mill viewed liberty as a means of providing the greatest happiness, and for our purposes the greatest well-being. (18). For this to be the case we can infer that the average person is capable of exercising their own liberty in order to produce the greatest well-being. However, as can be seen, this relies on the assumption that people have the capacity to act in a significantly autonomous way.

As discussed in chapter one, there are times where decisions are not made by the patient. These cases include the treatment of young children, treatment of patients with severe dementia, and cases of psychosis. Treatments made in this context are examples of what Joel Feinberg calls legal paternalism. Legal paternalism is the idea that:

> *"...it is reasonably necessary to prevent harm to the very person it [the law] prohibits from acting, as opposed to "others". "(2)*

In this section I am going to explain and develop the idea of paternalism and discuss its relevance to the ability of adolescents to choose for themselves.

When a person is medically treated against their wishes for their own good, this is paternalism. Or, more exactly, when the motive behind the treatment is the belief that the treatment is in the patient's best interests. It can thus been seen that paternalism requires the use of power and may, justly or unjustly, encroach on liberty. A non-medical example of paternalism is requirement in some countries to wear a safety helmet to ride a bicycle in public spaces. This is a restriction of liberty, but rather than being based on harm to others the justification for such restriction is to prevent harm to the actor.

Paternalism can be split into hard paternalism and soft paternalism(2). It is important to distinguish between the two because they have different underlying justifications, and therefore while one may be justifiable, the other may not. To start with let us consider hard paternalism. Hard paternalism is often defined as

> *"... intended to benefit a person despite the fact that the person's risky choices and actions are informed, voluntary, and autonomous"(22)*

From this definition we can see that hard paternalism involves overriding the choices of autonomous agents. If, as discussed in the previous chapter, it is best that autonomous agents have the ability to control their behaviour when it affects only them, hard paternalism becomes difficult to justify. An example of hard paternalism similar to the case of helmets is being legally required to wear a seat belt when driving a car. Even if the decision to now wear a seatbelt is being made by an informed adult and is sufficiently voluntary, the action of not wearing one is still prohibited.

There is a significant risk in the case of hard paternalism that the paternalistic course of action is not what is in the agent's best interest, rather, it is what a third party believes is in their best interest. As I have discussed, there are many reasons to believe that an attempt to

overrule the autonomy in this way will not be in the best interests of the overruled party. To reiterate those reasons relevant to this example: the agent is best poised to make decisions regarding their own well-being; differences in subjective valuation mean that what one values naturally varies between people; in overruling someone's autonomous action you necessarily do harm to them. For these reasons and the discussion in Chapter Two, the desire to do good for a person against their will, the basis of hard paternalism, is difficult to justify within the framework of liberty and well-being that I have laid out.

Moving now to consider soft paternalism. Soft paternalism involves treating

> *"...on grounds of beneficence or non-maleficence only to prevent substantially non-voluntary conduct – that is, to protect persons against their own substantially non-autonomous action(s). "(22)*

Applying this to the example of the mandatory use of seatbelts while driving produces the same outcome but with slightly different reasoning. In this case the final justification remains doing good for an actor by restricting the liberty of the actor. The difference here is that the decision being made is substantially non-voluntary. There is an important link between voluntariness and the ability to act autonomously, but is a substantial lack of autonomy sufficient to justify overriding someone's liberty?

As discussed in chapter 1, the code of patient rights states that all people are assumed to be competent to make a decision unless there is good reason for assuming otherwise. As the average adult is given control over their own treatment we can infer that the average adult may be considered competent. This being the case, it seems to follow that the average adult would not be a suitable candidate for interference on the basis of soft paternalism. This provides us with a useful starting point for considering soft paternalism in relation to liberty.

If we are to rely on a person to be self-governing then people must, in general, be capable of taking in information, using practical reasoning, and then act: to act autonomously. Mill believed to act in such a way could bring about the greatest well-being, which informs much of his utilitarian defence of liberty. If a person were to be incapable of carrying out these processes then from Mill's argument it is unlikely they are able to act to bring about their greatest well-being. Following this, it seems reasonable to restrict liberty in those who cannot act autonomously as they have demonstrated that the fundamental assumption underpinning the positive well-being value of liberty has been undermined. If autonomous

beings are not generally capable of choosing what is best for themselves it follows that a defence of liberty on the grounds of well-being is very difficult.

So then, it is desirable that autonomous agents should be at liberty to act where they do not cause harm to others. Additionally, that non-autonomous agents may reasonably be interfered with as they may lack the capacity to act in accordance with their own interests or laws. It seems then that it is reasonable to suppose that it is desirable that agents are capable of autonomous action as well as at liberty to use it. This would suggest that the process by which people become autonomous has a positive well-being value and must therefore be considered. So how then do we become autonomous?

Autonomy is not something which one gains suddenly having not previously possessed it. Rather than coming of a certain age and becoming autonomous, autonomy is something which must be developed and practiced over a period of time. Just as one learns a skill by practicing that skill and eventually mastering it, so too deciding for one's self must be practiced in order to eventually be able to act autonomously. This is no different for medical contexts, as it is important that individuals are able to be their own health advocates. Indeed, considering the fact that within the current legal framework a person is treated as autonomous once they reach 16 years of age, it is arguably more important that they have good practice with autonomy before this point. Without this practice, people will be given the right to act autonomously, the responsibility that goes along with that but with no practice of acting autonomously.

So, what does this mean for interference based on soft paternalism? It adds another dimension which is important to consider. If one is going to override the wishes of an adolescent, they must consider the lost opportunity to practice autonomy, as well as the effect it will have on the relationship between the patient and the medical community. There is a risk that if someone is overruled inappropriately their relationship with the medical system could be damaged. To better see how this might occur, consider the following example. A 13 year old girl, Ms V, is told that she is eligible for a human papilloma virus vaccine. Her doctor discusses it with her and after thinking about the pros and cons as she sees them, she decides she does not wish to have the vaccine. Now say, for the sake of argument, that her parents want her to get the vaccine and provide her doctor consent to vaccinate and assist him in forcing (in some way) the young girl to have the

vaccination. Clearly there are many ways that Ms V could respond to this situation, but consider the following as being instructive of the potential harm this situation could cause.

It is important to mention that it is possible, or even likely, that this will have no significant negative impact on Ms V. Not in the long term and possibly not even in the short term. However, it is plausible to think that after having her perceived autonomy overruled in this way Ms V could react in one of the following ways: Ms V goes on to have unjustified trust in the medical system; Ms V becomes untrusting of the medical system; Ms V becomes disenfranchised in her own health care. Let us consider first the example of unjustified trust in the medical system. One form this could take is when a patient does not advocate for their own health because they believe that they do not have anything meaningful to add compared to the doctor. While this case would commonly be a failure to achieve maximal well-being rather than to do harm, it is possible to think of a patient's failure to disclose important information resulting in considerable harm for them.

Suppose that Ms V becomes distrustful of the medical system. The harm that could subsequently result seems clearer. A child's distrust of the medical system may well be of little consequence. But if this continues into adulthood when the patient has full control over their treatment, or lack thereof, an adversarial relationship with the health system may indeed result in what could reasonably be called harm.

In highlighting these examples I do not mean to say that these things will happen, or even that it is most likely. But rather, to make the point that when considering decisions which could potentially impact on the development of autonomy, that potential impact becomes an ethically significant factor which must be considered.

So then, it seems that a lack of autonomy which produces actions which are not in the best interests of the patient are not sufficient to justify overruling the action on the basis of well-being in every case. Indeed, this is suggested in the definition itself in the language "significantly non-autonomous", which suggest the degree to which an agent is non-autonomous is a relevant factor. The degree of risk associated with any decision should be considered a relevant consideration, as the higher the degree of risk associated with the decision the more likely it is to produce a significantly bad outcome. If someone were considering respecting the wishes of a non-autonomous agent to allow them to practice acting autonomy, the amount of risk posed to that agent is relevant.

In this section I have discussed paternalism in light of the discussion in chapter. I have shown how when considering paternalism from the ethical framework used in this thesis only some forms of paternalism are justifiable. Paternalism which seeks to overrule the wishes of an autonomous agents on the basis of acting in their best interest is not justifiable. However, paternalism based on wanting to do good for a person who lacks autonomy is justifiable and even desirable.

Applications and Gillick

This chapter has explored the ethical considerations underpinning the treatment of autonomous individuals. However, this still leaves open the question of how can it be ascertained whether an individual is autonomous. One way that I have already discussed is Gillick competence and the tests created by Lord Scarman and Lord Fraser. Of particular interest is how the two approaches deal with the issues of well-being, autonomy and paternalism.

The Scarman test is underpinned by the acknowledgement of the transition of rights and responsibilities from parent to child which naturally occurs during development. Fundamental to this test is that, once able, the child should be able to choose for themselves what happens to them. This view then seems to hold the right of an individual to choose for themselves highly in the hierarchy of considerations.

I will now consider what implications the Scarman test has for different forms of paternalism. By recognising the right of parents to override their children at the start of life, the Scarman test acknowledges that interference with liberty is justified in early life. The point at which Scarman believes parental rights end and the right of self-determination transfers to their children rights begin is implicit within his test. That point being the point at which the child become competent to make such decisions. So then, until a child is capable of demonstrating self-determination and competence, they should be able to be interfered with. This approach is consistent with an approach based on soft paternalism. This suggests that Scarman's reasoning for adolescent autonomy is consistent with denying a choice on the grounds of soft paternalism.

In regards to hard paternalism however, the test Scarman lays out is explicitly one meant to test if the child has the capacity for rational decision making. If a person was to pass this

test then they should be considered reasonably capable to choose for themselves. From the discussion so far, once such a capacity has been proven paternalism alone is not enough to justify denying their decision and overruling. Therefore while Scarman's reasoning naturally favours interference based on soft paternalism, the same cannot be said for hard paternalism.

The Fraser test is different as it is ultimately based on considerations of best interests, which for this discussion is taken to mean that it furthers the child's well-being. This introduces a new difficulty, for as discussed on chapters 2 and 3, well-being is not always easy to ascertain, especially when considering all factors and not just medical ones. The Fraser test acknowledges the need for understanding information, but in a different way to Scarman's. The difference in the level of competence that must be demonstrated suggest that Scarman's approach is based more on the positive value of autonomy. The main source of ambiguity for the Fraser test is that it is difficult to know case by case when it is in the best interests of the child to be overruled.

Like the Scarman test, the Fraser test justifies limiting liberty based on soft paternalism. However, while they may produce the same outcome in many cases, the reasoning is different. In the case of soft paternalism, the notion of preservation of well-being is definitional. Well-being is threatened by the non-competent actor. It is not non-competence per se which is the issue, rather it is the threat such an actor poses to their own well-being. Therefore, disregarding all other considerations, the Fraser test does not oppose the idea of intervention on the grounds of best interests for well-being. This is not to say that such interference wouldn't be interfered with on other grounds, e.g. on the grounds that the particular intervention would not actually achieve but the best outcome.

This idea applies to hard paternalism too. Hard paternalism is limiting liberty when the justification is doing good for the subject themselves, even though they are autonomous. Fraser’s approach justifies limiting liberty provided it was in the subject’s best interest. This is an important point of difference between the tests devised by Scarman and Fraser, and what this reflects is the weighting Fraser puts on the idea of well-being.

Interestingly, if considering well-being in the broad highly multifactorial way discussed in chapters 2 and 3, it is possible to conceive Scarman's test as being nested in Fraser’s test. If it is accepted that it is in the best interest of competent agents to be able to choose for themselves then the two tests need not be incompatible. The Fraser test becomes a general

rule while the Scarman test is a test specifically aimed at determining competence. Competence being, in this case, highly relevant to what constitutes best interests.

There is also the issue raised by Lord Donaldson's ruling. In chapter one I discussed how Lord Donaldson's ruling on competency created an asymmetry in the way that the concept of consent is applied. Adolescents were able to consent to procedures as their parents could not overrule the consent they gave. However, parents could still give consent on behalf of their underage children. So when it came to a situation of an adolescent refusing to give consent they could theoretically be overruled by simply getting the consent of the parent. From Donaldson's claim that consent is protection from the litigious, it seems that his reasoning was far more practical than ethical. However, what if this approach has some ethical merit to it?

Two relevant concepts discussed already are the importance of well-being and the need to promote the development of autonomy. The asymmetry in consent arguably addresses part of this issue regardless of its original intent. In the New Zealand public medical system, health professionals only have access to certain approved treatments and procedures. Theoretically, this means that for any procedure to be offered there must be a reasonable body of evidence that it is effective. This means that any procedure which can be consented to has been scrutinised and assessed for its suitability and merits. There is also the process of bringing drugs and medical devices to market in the first place and, importantly, medical professional values to consider. The values of beneficence, non-maleficence and the requirement of clinical equipoise, a belief that any treatment given could plausibly be the best treatment available, mean that whenever a health professional offers a treatment they should believe that what they are offering is good for the patient.

So whenever an individual consents to a medical procedure, they are effectively agreeing with the health professional. So consenting to a procedure, once that procedure has been offered, does not carry as much marginal risk as one might initially think. By marginal risk I mean the increased risk compared to all other alternatives. For example, say a patient has a health arrhythmia and the suggested treatment carries a 2% chance of death within 5 years but to not treat carries a 5% risk of death in 5 years. It is clear that considering the risk of the treatment is more complicated than just considering the 2% chance of death, the risk of the alternative is clearly relevant. So in allowing adolescents to consent to procedures they are offered the ability to develop their autonomy without generally putting

themselves at a massive risk. More commonly the risk will be a sub-optimal outcome rather than a catastrophic one.

This is not the case when considering the refusal of consent. This is the opposite in almost every way, to refuse consent is to go against the advice of the medical profession. This is not to suggest that health professionals are always right, but it seems that the probability of a catastrophic outcome is higher in the case of refusal of consent than in consent. Additionally, in this system it is the child or the parent who can commonly give consent. While there are certainly bad parents, it can be reasonably assumed that parents have the best interests of their children in mind when attempting to decide for them. Typically, overruling a child is not something done lightly, and is usually done to avoid the risk of a significantly bad outcome. This by no means removes the risk of parents making the wrong decision, but it does mean that the chances of choosing an acceptable pathway forward are not as low as they might be with a disinterested party.

So then what of Lord Donaldson's ruling? It seems that, intentional or not, it acts to aide both positions holding as a core value best interests, and those which favour autonomy. In a system which will likely always consider both important to varying degrees, it seems like such a ruling makes some attempt at compromise and is likely doing some good.

Summary

In this chapter I have examined how we can weigh three main concepts: autonomy, liberty, and well-being. Well-being we have taken as being an internally defined good, that is to say, increasing individual well-being is good for that individual in all situations. This truism still leaves room for the practical reality that we can never know with certainty what course of action is best for any given situation. Well-being has formed much of the frame work for considering both liberty and autonomy by providing a theoretical measure of comparison.

I have shown how both autonomy and liberty relate to well-being, and that they are therefore necessary to consider in the medical context. The significance of autonomy comes in that it allows people to live life in a way which is best suited for them, thus allowing their own personal maximisation of well-being. Liberty, then, is a tool which allows for the interactions of different autonomous beings while attempting to minimise

restrictions on autonomy. Within the system of liberty there is contained both an acknowledgment that not all people are capable of autonomous action and puts limits on attempting to increase your own well-being at the expense of that of others.

Chapter four: When is developed enough?

The brain is the body's organ for thought and perception. While it is not entirely understood, modern scientific theories of mind agree that the brain is responsible for control over the body and the generation of consciousness. It is now known that brain maturation is a process that occurs over decades, with changes in the mind continuing all throughout life (23, 24). In the early years of life the brain undergoes huge development as a person goes from a point of no knowledge to a point of reflective consciousness that is seen in the average adult. Throughout this process there are significant changes to the brain both in terms of size and structure(23). Part of this change is doubtlessly a lack of exposure to experience. The brain is responsive to its environment and one must live in order to learn. Those who have lived shorter lives have had less opportunities to develop themselves and their understanding of the world around them. However, the majority of changes seen are due to brain maturation and development, the functional brain changes which occur throughout life(25).

In this chapter I am going to briefly discuss the changes in brain structure and behaviour that occur during adolescence. This is to allow a broader discussion on whether such understanding can inform an approach to autonomy and when one is capable to make decisions for one's self.

Neuro-development

The use of structural and functional MRI scanning has greatly expanded human understanding of how the brain develops throughout childhood. While these tests naturally require human interpretation, much of the research has involved matching the changes seen in neurodevelopment to changes in patterns of behaviour seen around the same times. During childhood there is an observable thickening of the cortex as neural connections proliferate(26). This is as a child experiences the largest relative increase of information that a person undergoes in their life time. The frontal lobe reaches peak volume at an average age of eleven or twelve years of life reflecting the occurrence of dendritic over production(26). This is a process where a component of neuronal cells, the dendrites, proliferate, producing the peak of grey matter.

After peak grey matter is reached the brain undergoes a process of selective pruning, where rarely used neural connections are lost. This pruning increases the brain's ability to undergo structural changes reflecting changing needs of the environment(25). Pruning is also involved in increased efficiency of the brain and is necessary for the development of specialised brain regions(27). These changes occur from the back of the brain to the front, with the back maturing first and the front last(24). This is worth noting as the late development of the frontal lobes has been a topic of particular interest when considering adolescent neurodevelopment, for reasons which will be discussed later in this chapter(27).

Following pruning, the next major phase of brain maturation is myelination. Myelin is a fatty sheath that surrounds and insulates nerve fibres to increase the speed and efficiency of transmission of nerve impulses. The process of widespread myelination begins soon after pruning, but current evidence suggests that parts of the brain, particularly the pre-frontal cortex, continue developing into at least the second decade of life(28, 29). The increased speed of neuronal transmission also allows for greater integration of brain systems further increasing the capacity of the brain(28).

These processes of dendritic proliferation, pruning and myelination are the three main changes that occur during neuromaturation. It is these changes which are thought to underlie many of the changes in behaviour seen between childhood and adulthood(30). Much of the later changes are either adaptive, or continuations of these same processes. But how exactly does this relate to decision making capacity or autonomy? To understand the relation it is critical to understand the pre-frontal cortex and the role it plays in cognition.

The pre-frontal cortex

The pre-frontal cortex is the anterior most part of the brain, and is heavily implicated in processes in the brain which are referred to as the "executive functions". Executive functions refer to a group of processes which work together to achieve the conscious control of behaviour. If these functions become damaged, as in addiction or autism, then there is a loss of conscious control(31). Some elements of executive control which are highly relevant to our discussion include working memory, attentional control, inhibitory control, cognitive inhibition, determining between right and wrong, distinguishing same

and different, understanding how in the moment decisions will impact on future outcomes and prediction of outcomes(32). These individual components are combined to achieve complex control over behaviour in what is called higher executive function(31). These higher functions allow an individual to take information about a situation, assess their options, plan a course of actions and then execute it(33, 34). What is immediately striking about this list is that if a person was incapable of doing even one of these functions, whether or not they could act autonomously becomes immediately questionable. How can a person possibly hope to act in accordance with their own laws if they lack the capacity to accurately predict the effects of their future actions?

Take for example two flat mates who are studying in the same field. Mr A is a first year student who is struggling with the content, while Mr B has finished his undergraduate degree and is now working on a PhD. Mr B wants to help Mr A pass the course but is unable to think about how short term actions will affect long term outcomes. So in order to help Mr A, Mr B does his homework and assignments for him to reduce his work load. This could plausibly be considered help, however what actually happens is Mr A loses the opportunity to learn and get feedback and ultimately fails his examinations at the end of the year as a result. Mr B was unable to achieve his self created goal because he was unable to consider the long term consequences of his action.

As the pre-frontal cortex is heavily implicated in executive function, it is understandable that it is focused on when considering adolescent behaviour. As mentioned above, the pre-frontal cortex is one of the last parts of the brain to finish developing, with myelination continuing into the mid twenties(29). Doubtless brain development is related to capacity to act in an autonomous way, but any attempt to use brain development as a measure for capacity would have to answer one critical question: when is developed enough? One obvious cut off point is when brain development is complete. However in this case there are several issues with this approach. Firstly there is the practical issue of determining the end of development. As neuroimaging techniques become more advanced and the understanding of neuromaturation becomes more sophisticated, the age at which neurodevelopment finishes continues to increase. However, even if the end of neurodevelopment could be accurately gauged it would still be, at the youngest, during the mid twenties. In modern New Zealand, a person is considered an adult by the age of 20 and is able to vote, marry, drink, drive, hold a job, start a business; participate in society in

almost every way. People are being given rights and responsibilities far before brain maturation ends, and it is not obvious that there is a problem that needs to be addressed.

Given what has been said about brain development and the role of the pre-frontal cortex, it is reasonable to assume that capacity for executive control will be lesser in adolescents than in adults. But how do the changes of behaviour seen in adolescence match up with neuroimaging data?

Brain and behaviour

It is important to remember that changes that occur in adolescence are often heavily associated with the culture that they grow up in(35). If part of "becoming a man" involves taking on responsibility, then it is not surprising that in such cultures the changes which occur during adolescence end with the person being more responsible. However, three well demonstrated changes do occur cross culturally in adolescence, and indeed, across many mammal species(36). These are: increased risk taking; increased novelty seeking; a shift towards peer-based interactions(36). These changes may seem initially to be counterproductive to survival. However, it is theorised that these changes have a positive survival benefit over populations as they encourage separation from parents, help develop individual survival skills, and reduce the chances of interbreeding(36).

These changes are important to consider as they relate directly to decision making. However, just because there is a change, it does not follow that one cannot act autonomously. Take for example the increased risk taking seen in adolescents. Without a way to determine what the correct amount of risk to allow in a given situation is, it does not seem that a tendency towards increased risk taking makes an agent non-autonomous. If it were the case that there were changes in the brain that made it impossible for adolescents to accurately take into account all the considerations which go into assessing risk, then the question of genuine capacity would become a very important one. If this were the case, it would be very reasonable to question whether a decision made could be fully informed. But what if the changes of mind are related to how individuals weigh up risk and reward rather than the ability to assess a situation? Neuroimaging is simply not at the point where the cause of these changes can be explained(35).

This is the issue of how one ought to weigh different considerations when deciding what choice to make. Increased risk taking is fundamentally comparative, either it is a comparison to behaviour in childhood or adulthood. Unless there is some way to determine the correct level of risk taking, then the mere acknowledgement of difference in risk taking does not help to inform the stage at which one has the capacity for autonomous decision making.

Take for example experiments conducted to attempt to quantify the tendency to prefer the here and now over some future reward. Studies conducted found that younger adolescents tended to be less willing to wait longer periods of time for larger rewards than older adolescents(37). Subjects were offered a choice between a cash reward in the moment or a larger cash reward at a point in the future. For example subjects were offered $800 now or $1000 in twelve months(37). By varying the amount of money given as a reward the researchers were able to calculate what they called the "indifference point", which when averaged represented the difference in weighting between the two groups(37). As might be expected, the results of this experiment found that adolescents required a larger difference between rewards to choose the delayed rewards. But what could not be shown was that the adolescent group was wrong for wanting the money earlier then their older counterparts.

This example demonstrates well the fact that a concept like the indifference point is not inherently action guiding. There is nothing which obviously makes a reward in the moment naturally inferior to greater reward in the future. There are certainly arguments either way, but for any individual it will come down in large part to preference. If it is the case that part of this problem comes down to different ways of assessing risk, then the question which must be answered is: is the adolescent perspective inferior in some way to the adult?

The problem of individual variability

In this section I will discuss how attempting to use the "hard science" of neuroimaging has major pitfalls. This relates to the ultimate reliance on subjective interpretation of data to create a useable ‘objective’ criteria and an inability to accurately apply neuroscience based criteria across the population. If neuroimaging is to aid in delineating between adolescents and adulthood, then it would be necessary that what is ‘normal’ for each is able to be

determined. Without an appropriate description of the normal then any attempt to generalise over populations of people would fall victim to the ecological fallacy; the fallacy of applying population data to individuals within that population. This fact is a weakness for any attempt to use neuroimaging to develop a criteria for autonomy. The following discussion focuses on two main points, that neuroscientific data is by nature continuous rather than discrete, and interindividual difference is highly variable.

A familiar problem presents itself when considering continuous data and attempting to use continuous data to determine a distinction between adolescence and adulthood. That problem being that it is difficult to define ‘developed enough’ when there is no easily definable objective end point. Neuroscientific data is continuous, rather than discrete, as all development is progressive instead of happening all at once(38). It is important to have a chronological cut off point as without it there is no means of comparison. As discussed when considering myelination, using "completion of development" as a measure is not suitable as development continues far past the point at which people are considered able to act with autonomy. Without this objective measure there must be a judgement call made as to when there has been enough development.

One way to determine a suitable point in neurodevelopment to consider the brain developed enough is to match observed behaviour to some point in the continuum of neurodevelopment. However, this approach does not actually solve any problem, rather it adds a superfluous step. By matching neurodevelopmental progression with behaviour, all that is achieved is to use neuroimaging as a proxy for behaviour based judgements. This does not add anything functional to an attempt to determine a point of developmental maturity. If it were the case that all people attained the same level of competence at the same stage in their brain development, then it would be more plausible to do it this way. However, inter-individual difference in neurodevelopment is too high for such an approach(38).

Different people achieve different developmental milestones at different ages. This is true too of the brain, with different brains developing at different times. It is certainly true that across a population of young people it is possible to take serial data and calculate averages, however this approach is not as robust as one might think. One issue is that different populations achieve different levels of maturity at different times. For instance, a difference in brain maturation can be seen across genders and influenced by a variety of

factors including childhood wellness and childhood nutritional status. The result is that any attempt to create a global criteria would fail as different populations would have systemically different means.

A more fundamental issue however is that of inter-individual variation. Again, in attempting to find some neurodevelopmental criteria for maturity, one of the fundamental assumptions is that such a criteria would be applicable at the level of the individual to help distinguish a competent person from a person lacking competence. If there is a high level of variability in the population then there is an increased chance of any measure developed failing to apply at the level of the individual. This problem in generalisability is commonly known as the ecological fallacy and must be carefully considered if such a criteria is desired. There is not only significant variability between individuals attaining certain neurodevelopmental milestones, but the overlap between observed change and behaviour change is also variable(38). Some of the changes seen in pruning and myelination cannot be observed on scans until well after the changes are underway and their theorised behavioural effects are well established in the individual.

This section has focused on practical barriers to using neuroimaging to determine a point of maturation. In the next section I shall consider the limits of our knowledge in the generation of consciousness and how such limitations create considerable barriers to any theoretical attempt to use neurodevelopmental data for making claims about capacity.

Making a decision

In this section I shall discuss our limited understanding of the generation of consciousness and how this impacts on any attempt to create a neurodevelopmental criteria for competence. As mentioned previously, neuroimaging studies do not always match up with decision making capacity. There is significant variation in both age and level of brain development when it comes to capacity to act in certain ways. One demonstration where differing capacity with age can be seen is in the level of responsibility taken on by children both cross culturally and across time. Whereas once it was normal for young children to partake in the functioning of a household and even to help raise siblings, it is becoming increasingly common in first world settings for children to have nothing asked of them and so take on little responsibility. The children who are practiced at responsibility have a greater capacity for acting responsibility compared to those who do not. This is not down

to some neurodevelopmental given, but rather the fact that much of how we act and engage with the world around us is socially defined and we are responsive to the world around us.

This brings the discussion to the question of consciousness. From the understanding of the mind that is currently available, it can be seen that certain parts of the brain are used for certain types of decision making. If specific tasks are undertaken, a set pattern of brain regions will predictably light up. By knocking out specific brain segments in animal models or by looking at the results of well characterised pathology, we can see the effect of losing function in parts of the brain. However, what is not well understood is the actual generation of thought and consciousness. This is a major weakness to any argument based on neurodevelopment as it makes it impossible to prove the link between development and capacity in any concrete way.

What is clear is that the ability to choose starts much younger than adolescence. Even a 4 year old is able to choose between two options based on preference. So before the brain development seen at adolescence, there is undoubtedly some capacity for executive function. Different children are capable of different levels of competency at different ages. To test this there was a study conducted by Campbell and Weithorn where they took 96 subjects aged 9, 14, 18 and 21(39). What was found was that 14 year olds did not differ from the two adult groups in their ability to understand information and make decisions(39). The 9 year old group were less able to reason and understand information about their treatment. However, they did not differ in their ability to express reasonable preferences in regards to their treatment(39).

This supports much of the discussion in this chapter in that it confirms the idea that neurodevelopmental milestones often do not match with real world capacity. What must be recognised is that evidence of the general increase in capacity seen throughout adolescence is not evidence that, prior to adolescence, there was no capacity for making competent decisions.

Despite the ability of adolescents, and even children, to make reasonable decisions in regards to medical treatments, it is worth considering if all decisions are the same? An important aspect to consider is the difference between "hot" and "cold" cognition. Hot cognition refers to decisions made at times of conflict or high emotional arousal(35). Cold cognition refers to decisions made in calm states of low emotional arousal(35). It may be that decisions made in these different states have different levels of competency associated

with them. The idea of hot and cold cognition are not abstracted ones. The experience of emotional arousal playing a role in the way people react to different situations are common to all. Where the controversy lies in whether or not these different forms of cognition have a role in relations to competency.

Neural pathways for hot and cold cognition are different and have different developmental pathways. The rate at which these pathways develop is different so an individual may be more competent when deciding based on one form of cognition than the other(40). At this point in time research has almost exclusively focused on highly controlled, safe environments, which would tend to support the use of cold cognition(35). When considering adolescent cognition it is difficult to separate biological determinants of behaviour from their particular socioemotional context.

While the differences in hot and cold cognition are not well understood at the current time, it would be plausible to think that as understanding increases, different standards could arise regarding what was considered a competent choice in a situation that is emotionally charged and high stress, and one which is relatively more calm and collaborative. In the health setting this might be the difference between long term treatment and the need for emergency intervention.

The risk of interpretation

Having discussed some of the more relevant scientific data, I will now consider two examples of attempts to apply neuroscientific data in the creation of social policy to illustrate further the difficulty in doing so. The first example is of Roper vs. Simmons, where neuroscientific data was used as an objective piece of information to argue that adolescents are less culpable than adults for their decisions. The second is the case of Hodgson vs. Minnesota(41), where the same organisation used the same data to argue that someone under the age of 18 was morally capable of making decisions regarding the termination of pregnancy. What is well highlighted here is that information can be interpreted in different ways depending on what outcome is desired, and this applies just as well to neuroscience as to other "softer" sciences.

In 2005 the case of Roper vs. Simmons was brought before the US Supreme Court(42). In the case a 17 year old man, Christopher Simmons, was changed and convicted for

murdering a women while attempting to rob her, and was given the death penalty for his crime. Simmons' defence team argued against the sentence, claiming that while he was developmentally normal, his less than fully matured adult brain made him less culpable for his crime and therefore that the death penalty was not a suitable punishment. A number of briefings were filed by a variety of organisations, most notably the American Medical Association (AMA) and the American Psychological Association (APA), which summarized the existing neuroscientific data and offered some interpretation(43).

The brief published by the AMA suggested that a lack of complete brain development did indeed make adolescent culpability fundamentally different from that of adults. Importantly, they implied a causal link between adolescent behaviour and the structure and function of their brains. They argued in part that:

> *"[a]dolescents' behavioral immaturity mirrors the anatomical immaturity of their brains. To a degree never before understood, scientists can now demonstrate that adolescents are immature not only to the observer's naked eye, but in the very fibers of their brains'"(43)*

After deliberations, the court ruled against the use of the death penalty in this case and marked the end of the death penalty for juveniles. The neuroscientific evidenced presented was believed to have had a significant role in the judge's decision to overturn the death penalty. Some have resultantly described this case as "*"Brown v. Board of Education* of 'neurolaw,(44)'". A reference to the Supreme Court case which over turned racial segregation in schools, which represents the significance of both the case itself and the neuroscientific element of it.

The second case is that of Hodgson vs. Minnesota, where in 1990 Dr Jane Hodgson challenged a Minnesota law requiring both parents consent before a minor could undergo a termination of pregnancy. Dr Hodgson sought to see the ruling overturned on the basis that it was unconstitutional. After consideration by the Supreme Court, the law was found to be unconstitutional and a move was made in favour of the plaintiff.

These proceedings are significant to this discussion as they also called on neuroscientific evidence to aide their point, with the APA filing a brief in support of an adolescents right to seek a termination without parental consent. In that brief, the APA argued that by the age of 14 adolescent decision making was effectively indistinguishable from that of adult decision making. This is where the problem with subjective elements of neuroscience can

be most clearly seen. This was summed up by Justice Antonin Scalia during his dissenting opinion in the Roper vs. Simmons case (45)

> *"[The APA] claims in this case that scientific evidence shows persons under 18 lack the ability to take moral responsibility for their decisions, [the APA] has previously taken precisely the opposite position before this very Court…Given the nuances of scientific methodology and conflicting views, courts—which can only consider the limited evidence on the record before them, are ill equipped to determine which view of science is the right one"(45)*

As is pointed out by Justice Scalia, the variation of interpretations of the same data from the same organisation rightly puts serious doubt as to whether such interpretations can be considered objective. If the usefulness of such data relies largely on its supposed objectivity, then to undermine its objectivity is to fundamentally undermine the data as an useful action guiding and policy guiding source. The dangers of using seemingly objective scientific data to make wide claims not actually supported by the data are well attested to in history. One need only look at the examples of phrenology to see the damage that can be done when premature interpretation is made without adequate evidence to back it up. Phrenology was used for decades to justify both racial and gender superiority. In the case of adolescent cognition, the science is clearly too immature to make powerful claims based on empirical evidence. One could argue that there is a difference between termination of pregnancy and murder based on the distinction between hot and cold cognition, however, this was not the argument made by the AMA or APA and is again only suggested by the data.

In this section I have considered the danger of using highly interpretable data to attempt to make important objective claims. To demonstrate this point clearly I considered two Supreme Court cases where the same organisations used similar data to argue opposite points. In the next section I will move away from neuroscientific data and focus on developmental theories of development.

Developmental theories

So far I have discussed theories based around the idea of anatomical data and using such data to attempt to discern a point of maturity. I have shown that there is much lacking from such an approach and that it is not currently capable of describing adolescent development in anything close to a complete way. Now I will consider an approach based on

developmental theories of childhood, such as those suggested by Freud, Piaget and Erikson.

Developmental theories focus on the behaviour of people as they progressively develop from childhood to adulthood(46). Normal development is defined by taking large groups of people and following them through life, looking for commonalities of experience. For instance, the transition in children from solo play, to side by side play, to social play is a well documented phenomenon that is seen in most children. However, in the few children who do not undergo this transition it has been found that a disproportionate amount will have predictably worse outcomes in areas of later life(47).

This highlights a key element of the developmental approach. Whereas thus far I have been discussing by what standard we may class a person as being competent enough to act, the developmental approach is far more descriptive in nature. Developmental theories seek to look at the normal so as to be able to identify the abnormal. One assumption with this approach which seems to hold true is that significant deviations away from 'normal' development occur for a reason, or at the very least, are worthy of attention.

As with the anatomical approach to development, there is significant variation at the exact point at which a person achieves certain levels of ability or meets specific criteria(47). However, by constantly updating and increasing the understanding of the normal range, there is an increasing ability to understand and identify the abnormal. Where possible, the goal in such a case would be to identify any modifiable cause of altered development and, when such a alternation is seen to be having a negative impact, to rectify it.

As with the use of neuroimaging, there is the problem of when one is developed enough. One common approach to this problem within the developmental approach is in the use of milestones. Milestones are the use of specific physical or mental markers to define the end of one stage of development and the beginning of the next(47). An example of a marker is the ability to walk, the ability to speak and solve puzzles or even height and weight. As mentioned above, there is considerable variation in the age of attainment of each of these stages. This means that, practically, there is no exact point at which a milestone can be applied to definitively determine whether someone is developing normally or not. However, taking averages for the attainment of specific milestones over populations allows for the construction of age ranges for attainment.

When divining milestones, it is important that the milestone is somewhat related to age, as otherwise it is not a suitable proxy for assessing development. For instance, learning to walk is a suitable milestone for early life because it has been shown repeatedly over time that in "normal" individuals there is an average age of attainment of walking. However, learning to ride a bike would not be similarly suitable as it is by no means part of the normal progression of human behaviour to learn to ride a bike. By having concrete markers which are based on averages across populations which are related to age, it is then possible to use such criteria to identify when development is not occurring as it should be.

But how exactly does the developmental approach to development help when considering the attainment of competence? As the developmental approach is more focused on describing the normal processes of development and identifying anything which may be considered abnormal, it is hard to apply directly to such questions as "when is someone autonomous enough to make decision X?". As with all models considered so far, this problem stems from an inability to clearly define a point at which competence is demonstrated, either specifically or generally, let alone to define the normal.

The use of milestones may initially seem a plausible solution, but it does not seem likely such an approach will be a good proxy for competence. Consider milestone Y, which is the milestone taken to represent the attainment of capacity. To ensure that upon the attainment of milestone Y competency is also reached, it is necessary for true competency to have been achieved some time before Y. Additionally there is the problem, already mentioned, of inter-individual variation. Both of these situations results in the denial of competence to genuinely competent individuals.

Next there is the problem in that the attainment of milestones can sometimes be too simple a measure when considering development. Specific deficiencies can prevent the attainment of milestones often without clear implications for much of development. For example, take the use of the attainment of the ability to read as a milestone for intellectual development. If the determined age is reached without the child being able to read, then it is assumed that their intellectual development is slow. However, there could be confounding factors which prevent the milestone being an effective marker.

In this case one example would be blindness. A blind child may have normal intellectual development but be unable to demonstrate so due to the nature of their disability. A similar scenario is seen in the case of the attainment of speech and deafness. These confounding

factors make the development of any clear milestone much harder. It is not implausible to think of a test which may work to find the point of competency for some but fail in the case of some developmental disorder like autism. As with blindness and deafness, identified deficiencies can be considered and factored in when using milestones, and such examples continue to highlight issues which can be seen in the milestone approach.

While the milestone approach is not perfect, it does not seem too dissimilar to the system currently in place in New Zealand. Using the attainment of a certain age as representing the attainment of competence is simply an approach which uses age as a direct marker of competence. But is there any merit to using a milestone based approach? In devising his criteria for testing and proving competence, Lord Scarman created a complex milestone to prove the attainment of competence. To be specific, the milestone is the ability to successfully pass the Scarman test. The problems with this approach have already been discussed to varying degrees, but some are: questions surrounding the validity of the test itself; the need for subjective assessment by an assessor; whether competency is able to truly be tested in such a way.

Even so, it does seem that attempting to test for competence in such a way has some merit. It is able to bridge important elements of both the anatomical and developmental approaches to competency while remaining consistent with the values and considerations discussed in chapters 2 and 3.

Balancing rights and responsibilities

So what, if anything, can be drawn from neuroscientific data? Neuroscience provides interesting mechanistic explanations for some aspects of human behaviour which have themselves been observed and described for hundreds of years. Understanding why a person can undergo a complete personality change after a traumatic brain injury, or how developmental abnormalities could plausibly effect behaviour, have been important breakthroughs for the health professions, particularly where such discoveries have allowed the development of treatments for them. However, as of yet neuroscience cannot give a unifying explanation of consciousness. The limit so far seems to be to describe some functions of some parts of the brain.

There are those who remain sceptical as to whether neuroscience will ever be able to adequately solve the problem of consciousness and create universal guides for action. What is clear at the moment is that philosophical, ethical and sociological ideas around consciousness remain vitally important in any approach to adolescent autonomy. There is an argument to be made for staying with and attempting to expand on conservative approaches to autonomy generally. Conceptualisations of autonomy which were used before the introduction of neuroimaging were not perfect, but they were effective in as much as they have played a part in creating the modern conceptualisation of a person. Changing any established norm always poses a risk as there will likely be knock on effects from such a change which had not been considered and may be impossible to predict.

One way to frame discussion around recognising autonomy in the context of aging and development is in the terms of rights and responsibilities. As is emphasised in the developmental approach to development, as children develop they seek to develop skills and seek greater freedom. As they grow and develop, children will be given more responsibilities which are in keeping with their new skills, and thus feel entitled to seek greater rights. This process is essential for maturation and development, but both rights and responsibilities are required for healthy development. Even with the deterministic outlook for much neuroscientific theory, a developmental theorist will tell you that a failure to give children rights and responsibilities will prevent optimal development and thus can be considered harmful(46). As long as people are going to expect things of each other, whether that be labour, the upholding of contracts, the assumption of civility, or any other possible expectation, there is going to be the requirement of the recognition of at least the illusion of free will.

When considering application, it is important to keep in mind that a discussion such as this can make these issues seem very black and white. The reality is and always will be far more grey for reasons including the absolute limits of knowledge and the requirement of human interpretation. All of the approaches discussed are built up of vast amounts of both theoretical and empirical evidence, and involve delicate subtlety which is often missed when trying to compare to find the best, rather than simply to understand. Often times if a question is being asked in a clinical context, action is required and one must work with the tools at hand rather than take the time to question them in the moment. In writing this chapter, I have discussed some of the limitations of several theoretical tools used when

considering development. My hope is that this discussion has provided an opportunity to understand these tools so as to better apply them in the future.

In this chapter I have looked at anatomical and developmental approaches to development and considered what information they can add to help the understanding of adolescent autonomy. I have shown that while both have important applications, they are not directly applicable to assessing whether or not someone is competent to make a decision for their own medical treatment. In all approaches considered so far there will be a considerable element of subjective assessment, and this fact must be taken into account when attempting to put any approach to adolescent autonomy into practice. In the next chapter I will consider a case where adolescent autonomy has been considered by the courts.

Chapter five: How the courts balance well-being, liberty and autonomy

This chapter examines how the courts have weighed the three ethical concepts I have defended in a contested medical decision involving two minors.

On the 31st of July 2013, the London High Court heard the case of F v F(48, 49). The case regarded a difference in opinion between Mrs F, the mother, and Mr F, the father, about the vaccination of their two young girls, L (15) and M (11), with the MMR vaccine. The father was seeking a court order to have the girls vaccinated while the mother, L and M were all opposed to the vaccine.

L was vaccinated soon after her birth, but following the publication of Dr Andrew Wakefield's article linking the MMR vaccine and autism(50, 51), Mr and Mrs F jointly decided not to get any further vaccination of L and not to vaccinate M after her birth. However, following the Lancet's retraction(52) of Wakefield's article and a 2013 measles outbreak in Wales, the father decided it was in the girl's best interest to receive the vaccine.

The presiding Judge, Mrs Justice Theis, heard formal testimony from the mother, the father and Ms Vivian who was appointed to assess the girls understanding and wishes. There was also an informal meeting with the girls early in the proceedings. The judge made it clear from the outset that the court's decision, whatever that may be, would be based on the children's 'best interest'.

After hearing the testimony and some deliberation, the decision was ultimately made that the children should receive the MMR vaccine, despite their objections. The main considerations in this decision were firstly, the medical benefits of vaccination, and secondly the conclusion that the children did not meet the mature minor standard. This was based on a number of things, significantly that: the girls had an unbalanced view of the pro's and con's of vaccination; the undue influence of the mother on the girls decision; the failure to properly consider the potential consequences of not having the vaccine; that the girls lacked maturity in some way; L's objection to the ingredients in the vaccine over emphasised in her objection.

This is a clear example of a situation where medical well-being has been put above the autonomy and liberty of those classed as minors. Whether the decision ultimately made by the judge was the right one, there are undeniably many ethical questions which cases like these expose and which must be addressed. Some issues of particular importance are: the justification behind the use of the mature minor standard and the way it is assessed; the judgements surrounding 'best interest' and contained within this the application of medical procedures to those who actively and consciously object to them. After having discussed these issues in theory in earlier chapters, I will now use this example to help highlight some more subtle issues.

Representing the anti-vaccination position

In the judge's ruling she states that the girls are non-mature minors and uses this fact to back up her decision to override their autonomy. This seems to suggest that a mature minor would have had their autonomy respected by the court. This case highlights some of the practical pitfalls when it comes to attempting to justify the removal of liberty, which are not always immediately apparent when looking from the purely theoretical perspective.

The girls were unable to advocate on their own behalf, never being given the opportunity to address the court themselves and plead their own case. Instead they had to go through a mediator appointed by the Court, Ms Vivian. This process raises a number of questions, the first of which is: can a mediator be relied on to accurately express the wishes of the girls? Both girls clearly had reasons for why they did not want to be vaccinated and it seems reasonable to assume that which outcome was reached mattered to them. It seems that the girls themselves were best poised to make any defence of the rationale behind not wanting to become vaccinated, not Ms Vivian. Part of the problem is that there is little information given in the court documents about the interviews Ms Vivian conducted with the children other than that they occurred.

It is worth considering the different times when the girl’s message could have been changed due to interpretation. Firstly there is the point at which they told Ms Vivian. Anything which the girls told Ms Vivian would have been interpreted by Ms Vivian and thus informational clarity could have been lost. Then when Ms Vivian was required to reproduce the girl’s positions and discuss their perceived competence another source of error is introduced. Then again when the judge needed to once again interpret what was

being said. It again begs the question of why the girls could not argue their own case for themselves.

Finally, to consider the role that different attitudes on health have to play in this scenario. Ms Vivian was advocating for the girls based on what was in their best interests. However, what constitutes best interests are based on personal beliefs about health, well-being and what is considered best. Ms Vivian's personal views on health could have conceivably factored in how she interacted with the girls. This could have come out in a number of ways. It could have been in the form of explicit bias; a change in the way information was relayed to the judge; or how the girl's views on one issue had affected her perception of them. If Ms Vivian had been fiercely anti-vaccination, and had believed that for someone to get vaccinated was intentional self harm, then reasonable questions would be raised about her ability to objectively assess anyone in regards to vaccination. Such a person might genuinely believe that anyone who does not believe as they do is, for merit of not believing, demonstrating a lack of competence. The danger in this case is the opposite from that in the example. There is the risk that simply being anti-vaccination represents to some people a lack of reasoning capability.

The undue influence of the mother

One requirement of Gillick competence is that the individual whose competence is being tested is not subject to any coercive pressures. It requires that the assessor, in this case the judge, make assumptions about the motives of the person being tested. This fits with what has been discussed so far to a degree, as to coerce is to use power and so could jeopardise the voluntariness of a decision. What exactly is meant in the Gillick criteria by coercion is unclear. It seems reasonable to take it to mean something wider than to be able to resist threats and inducements, as depending on the severity of a threat even the most autonomous adult may reasonably capitulate. It is likely that the kind of coercion that the girls were subject to, if any, was interpersonal leverage from their mother.

In this particular case the mother clearly had strong views which could have affected the way the vaccinations were introduced to and discussed with the girls. Furthermore, the girls were clearly aware of their mother's views, so at some point she must have shared her views with them. However, the girl's specific objections were not entirely aligned with the mother's objections. The older girl in particular made an ethical objection based on the fact

that animal products were used in the production of the vaccine. With that said, it is unknown how the older girl came to know that animals were used in the testing. If this piece of information was given to her by the mother it could very conceivably be considered manipulation.

What is not clearly addressed in the court documents is why the girls were thought to be incapable of resisting their mother's pressure. It could be that the mere fact of pressure being present at all was considered a mark against the girls. But this does not seem to be a reasonable approach to take as the competence being tested is surely based on M and L as individuals, rather than the situation more broadly. It must be recognised that coercive forces can play a role in affecting someone's decision making. But equally, one must acknowledge that it is possible to resist coercion and still be able to make a voluntary, informed decision.

Lack of information

Part of the decision made by the judge was influenced by the perception that M and L did not have a suitable level of understanding of the consequences of measles, mumps and rubella and therefore their decision was not fully informed. Given the situation and the lack of urgency for medical treatment, it is not clear why they could not have been informed of these things and then allowed to make their own decisions. If part of the problem is that their willingness to accept a slightly higher risk of measles, mumps and rubella was skewed by their lack of understanding of consequences, it seems to follow that if M and L were educated sufficiently about the risks of the diseases they would have been more likely to be considered mature minors. If true, this suggests that one may have the potential to act autonomously but lack the specific skills or information required at the time.

This situation also brings in a fundamental value in the health professions, the ethical responsibility to inform patients. There are many adults who are diagnosed with diseases they have never heard of and have no understanding of. Yet often after a single consultation they are required to make decisions regarding what health care they will receive based only on information provided in that same consultation. What this is meant to demonstrate is that a lack of knowledge at one given time is not sufficient to consider someone incapable of making a decision. It is contingent on the health professional to

empower their patient by giving them important, relevant information with effective communication techniques. With this in mind it is surprising that throughout the course of the trial neither M nor L were taken to see a doctor to have the medical element of vaccination fully explained to them.

A final point to make about the judge's reasoning regarding the case is the judge's dismissal of veganism as a legitimate defence for not wanting to take the vaccines. A large part of this decision was based on the idea that such a position demonstrated a lack of insight into how the drugs needed to treat measles, mumps and rubella were produced. Such drugs are tested on animals, and was therefore meant to show an inconsistency of reasoning in M's thought process. I believe what is demonstrated here is how different people weigh up different considerations differently.

The two situations are very different, and thus it is not unreasonable to think they will be considered in very different ways. In this case once deciding to get vaccinated, vaccination becomes an imminent certainty. This is very different to the situation with non-vaccination, where there is no guarantee that any animal product will ever have to be used, as the absolute risk of contracting measles, mumps or rubella is low. Preventative measures such as vaccines are aimed at increasing population health, with absolute benefit to any one individual being small. Indeed, one could argue that the only people who directly benefit from vaccination are those who would have gotten the disease in question but didn't because of vaccination.

Another factor to consider in relation to this scenario is that one could conceive of preventative treatment as a decision, whereas life saving treatment is a necessity. This is the difference between being an agent and making a choice and being a victim of circumstance and needing to act reflexively. When considering veganism and vaccination, it becomes much more understandable that someone might not want to choose to use the products of animals in a preventative way. A decision is being weighed up based on the moral feelings of the individual versus the risk of harm from later pathology. However, if the patient then has measles and must decide whether to exploit animal labour then the weighting is very different. It is again moral feelings versus risk of harm, but now the risk is much greater and more immediate. The point being made here is that there are a number of different ways that this situation can be interpreted based on how any given person sees

it. These decisions are very complicated and nuanced and as they relate to people's self laws and sentiments, they are often not well suited to analysis by pure logic.

Judgement about best interests

In this case, as the judge rightly points out, there is an overwhelming medical consensus on what will produce the best health outcomes in terms of risk of measles, mumps or rubella, as compared to the risks associated with the vaccine itself. However, as has been discussed so far, well-being has more to it than just good health. As with any case where someone's autonomy is to be overridden, there are aspects of well-being which may be affected which need to be taken into account.

There is a strong case to be made that overruling anyone who considers themselves to be capable of making their own decisions poses a risk to well-being. In this case a significant risk of harm is the potential harm to the girls psychological health. This risk can be significantly increased depending on the way in which it is enforced. It is worth noting that the risk exists regardless of actual capacity for autonomous decision making. What matters is the individual's perception of their own ability to make a decision. In this case L is of particular concern, as she already suffers from "mental problems", specifically anxiety, which could conceivably be worsened by this situation. The judge makes reference to taking these facts into consideration, but based on the information that she has, it is hard to see how she could have a good understanding of the potential psychological harm other than to acknowledge its existence. Ultimately, any potential psychological harm can be seen as being potentially detrimental to well-being and thus must be carefully considered in the context of the case.

The potential harm to the parent-child relationship is also extremely relevant in a case like this. The judge takes this into consideration, finding that in this case there is little risk of a breakdown in the relationship. It does however beg the question of how differently you would have been justified in treating them if the parental relations were less stable. According to the judge's well-being based approach, it would be reasonable to assume potential damage to one or both if the parental relationships could be invoked as rationale in the final decision. This presents an interesting dilemma, as the more willing a child is to be disruptive or disobedient, the more likely they are to get a ruling in their favour, regardless of mature minor status.

There is a second relationship at risk in this context, the relationship between the girls and the health community at large. It has been well documented that a strong doctor patient relationship and good engagement with medical services are both conducive to better health, so any hindrance to the development of these strong links stand to be damaging to welfare over the course of a life time. Forcing a child to undergo medical treatment against their will does not rule out having a good relationship with health services, but it does risk damaging the trust that underpins so much of modern medical practice. This is especially true of L, who at 15 is but a year away from taking full control of her own health decisions and who would be ideally be transitioning, with the support of her parents, from a less engaged role in her own healthcare to a point where she would ideally be able to understand her health needs and be her own medical advocate. A negative experience now which threatens to undermine this process has serious implications for future welfare, so much be carefully considered alongside pure health outcomes in the moment.

A related issue is the development of the child's ability to advocate for their own health. During childhood, it is preferable to give a child as much freedom to act and learn for themselves as possible while still ensuring their safety. So too it may be said it is preferable to give a child maximal input into their own medical care, without incurring an unacceptable level of risk, so that they may develop the ability to judge what is in their best interest and make decisions which align with these judgements. In our current system it is at the age of 16 which people consider an individual to be capable of this skill. However, as with most skills, if the opportunity to learn self advocacy is seldom or never offered to them, it is hard to see how a person will be capable of this.

The consequences and implications of forced treatment

Whenever a decision is made to overrule someone else's wishes, it is critical to keep in mind that to view the choice as being between, in the case of FvF, vaccination or no vaccination. What is omitted in this analysis is that just because a court has ruled that an individual does not have the right to choose for themselves, they will still feel as though they do, and this feeling can quickly turn into action if their objection to a specific course of action is strong enough. So the choice is better considered as vaccination plus whatever is required to vaccinate versus no vaccination. In some cases a court ruling may be enough,

but this will certainly not always be the case, and in the latter situation it is important to ask how far it is acceptable for agents of the court to go to enforce the court's decision.

It is known that the judge ruled that the girls should have the vaccine, but what actually transpired after the court ruling is open to speculation. Based on the court documents, in all likelihood the girls did receive the MMR vaccine.

But what if the girls simply refused to go to the doctor? The court made it clear that the expectation was that the parents work cooperatively with the children to ensure that the vaccine was received with as minimal as possible damage to well-being, and this was understood and accepted by the parents. So then it is not implausible to think that if one of the parents actively went against the court's ruling they could be held accountable by the courts. But what if it were the case that communication and coercion had failed and the parents did not feel comfortable using physical force to make the girls go to the doctor? It may then be reasonably considered that an agent of the court may be called upon to use a measured and reasonable amount of force to bring the girls into the doctor's office. For some, this will undoubtedly be the point where a line has been crossed and these people may well view that this is now treading on unethical territory.

Allaying those fears for a moment, say that we can bring a health professional to the girls. But now comes the problem of actually injecting the girls with the vaccine. If the girls decide that despite all the convincing that can be offered to them, they will not allow the needle into their bodies willingly, the situation become more complicated still. If the girls try to physically resist by wriggling or thrashing whenever an attempt to hold them is made there will be significant risk of injury due to the needle. Additionally, young as they may be they may be, such action puts the health professional at risk of physical injury if they become violent.

It is not unreasonable to consider that in either of these options the risk of unacceptable injury is simply too high. So what now? Everyone involved in this case, who is not a child, is trying their best to abide the court's decision yet still to no avail. Assuming no amount of verbal coercion will work at this point, I consider there to be only two options:
either, increase the amount of physical force being used or give up the attempted vaccination, at least for the time being. Both of these options present problems, however it is worth noting that only one of them will achieve the court's order.

So what if the former option is chosen? In practical terms it is no great task to subdue a child and hold them still provided enough willing adults are present. One person holding the shoulders, one the torso and waist, one the arm to be injected and then a fourth to quickly inject the vaccine would suffice, although depending on their resistance more or less may be required. This will achieve the court's directive, but to what ends? The motivation for this vaccination was well-being, and this will undoubtedly be traumatising to witness, let alone experience. It is arguable that in carrying out the court's order, the very rationale behind the order itself becomes invalidated. But besides well-being, is it not conceivable that the girls have other rights which are being violated? Even if this is the best course of action, it is plausible to think there could be other motives not to carry this action out which are important in their own right.

Now consider the second option, giving up the attempted vaccination and postponing it to another time or giving it up all together. This presents the dilemma already mentioned above, that it rewards disobedience and disruption. Additionally in the case of L, what happens if she can delay the vaccination for long enough that she turns 16? One might assume that once she had turned 16 this order would no longer be valid, but with course tools such as law it is always possible that she may suffer some penalty or another. This also begs the question: if she were to turn 16 with no change in opinion whatsoever, could she now be reasonably and consistently considered competent? And if so, it would seem to suggest inconsistency in the standard being used.

The nature of enforcing the court's ruling links back to the implications for the well-being of the girls in regards to any potential trauma and losing a large degree of trust in the health system both of which could compromise well-being.

The parents

A final source of harm not directly related to the girls but still necessary to consider is the potential harm that a court order represents to the parents. The court made it the parents responsibility to ensure that the girls received their vaccinations. This raises the question of what happens if they do not? It can be assumed that only the mother will refuse to assist in the vaccination procedure at this point, but the court makes it clear that it holds both parents responsible. What this means exactly is not clear, but it seems that at the very least if the parents were to fail to fulfil this legal responsibility they would likely face some

penalty. This is a direct risk of harm to the parents and, if required, would represent a direct infringement on their autonomous action.

The mother in particular is in a moral conundrum with no clear answer. I will assume for the sake of argument that she is anti-vaccination for the most well intended reasons, what does this mean for her? It means that she genuinely believes that she is acting to prevent harm to her children and that the courts are demanding a course of action which will produce harm. This may be entirely empirically false, but as discussed previously, the subjective nature of individual experience makes it impossible to discount such a situation, regardless of medical consensus. So the mother, believing as she does, is forced to make a choice. She can either go against the courts and risk the harm already described, or she can act in a way which contradicts her self defined laws. In effect she is being asked to choose to put her children at risk, an action it is reasonable to assume she would consider immoral.

But can forcing someone to act in a way they consider immoral pose a risk which is different in some way to risk of harm when being forced to act against your will generally. The potential harm here is the risk of changes to self-perception resulting from the immoral act. Self esteem is important in physical and mental health, both of which are components of well-being(53). Self perception is closely related to self esteem, so if self perception is negatively affected it is reasonable to think the same will happen to self esteem.(54)

If the mother does decide to get her daughters vaccinated she could come to have a poor perception of herself as she has done something she considers wrong. This could be for a number of reasons: she considers herself immoral; she considers herself weak for not standing by her convictions; she considers herself a bad mother for not protecting her daughters. This is by no means a complete list, as the ways that people interpret an event are not always predictable and are not always well justified.

Throughout this chapter I have considered the case of F v F to highlight some of the issues discussed in previous chapters of this thesis. In considering the various possible outcomes from this case I intended to show the various ways in which harm can be introduced when action is taken to contradict the wishes of an individual with the perception of autonomy.

Conclusion

Throughout this thesis I have put forward the argument that there should be a greater respect for adolescent autonomy than is currently shown in the medical system. In clinical practice it is critical to have well considered practical guidelines to help guide treatment and patient interaction. Currently such guidance is lacking when it comes to adolescent autonomy. There are inconsistencies and contradictions both in literature and in practice that raise significant concerns. The manner in which things are practiced often come as a result of progressive incremental change, rather than consideration and construction at one point in time. Inconsistency is a warning sign that a current approach needs to be analyzed and, where appropriate, changed. In this thesis my aim has been to shed light on some of the key issues with adolescent autonomy and to provide a framework within which to consider autonomy both generally and as it relates to adolescents.

After discussing the need for such a discussion to take place, I established well-being as an important concept in the health profession and one which underlies some of the most fundamental medical values such as beneficence and non-maleficence. In this thesis I have shown that well-being is therefore justified as being used to compare approaches to healthcare as, all other things the same, a better system is one which has better outcomes for well-being. In medicine the question of well-being will often come down to choosing a specific treatment or course of action. The question "Who should ultimately decide of the course of treatment for an individual?" is central to this thesis.

Having established well-being as an important concept, I introduced the concept of autonomy and demonstrated that a medical approach which emphasizes autonomy is plausibly the best approach for maximizing well-being. While my fundamental claim is that autonomy should be respected for reasons previously discussed, I do not argue that there is no limit to autonomy. I introduce the concept of liberty as a means of limiting autonomy while still allowing a significant degree of respect for individual rights. In my discussion on liberty I have shown one way of considering the nature and limits of liberty and why such an approach would empower people to achieve the greatest state of well-being. This is because in allowing autonomous agents to self determine there is the greatest chance of choosing the right course of action, and because being free to act autonomously makes up part of well-being itself.

My argument then is that respect should be given to autonomous agents, regardless of their age or status. As well-being is an important consideration in healthcare and in a wider ethical context, so too autonomy is important if for no other reason than its positive effect on well-being. Different systems treat adolescent autonomy differently, but it is typically assumed that below a certain age people should not be assumed to be capable of autonomous decision-making. Such an approach is unsatisfactory, if there is the possibility that a patient could demonstrate autonomy then it is morally incumbent on those involved in their treatment to respect this fact and give them the opportunity to prove it so. There will obviously be times where this is not possible: if a child is brought in to the emergency department quickly losing blood and requiring a transfusion it would not be appropriate to attempt to assess their ability to act autonomously. However, respect for the autonomy of all people should be a priority for anyone working in the health profession, and adolescents are no exception.

In chapter 4 I considered alternative approaches to development and competence. Throughout the discussion I showed that while they clearly have strengths and uses, their usefulness in considering autonomy and competence is limited. The ability to act autonomously is just that, an ability. There is so far no way to demonstrate this ability in a person other than to have them simply demonstrate it. This presents significant difficulty for any work in this field, but importantly shows that at the current time there is no one approach which can claim a clear superiority over others. In fact, as I have shown throughout this thesis, an approach that takes an ideal based philosophical approach can address specific conceptual issues that others cannot. Moreover, a problem with some empirical approaches is that they are simply data until interpreted. Even the most data driven approach still requires a degree of value based subjective assessment by a human at some point to give it meaning.

In chapter one I discussed current approaches to adolescent autonomy both in New Zealand specific legislation and practice and also in medicolegal precedent more broadly. Specifically I looked at the case of Gillick vs. West Norfick as one of the key cases in the consideration of adolescent autonomy. In chapter one I have shown that there is significant inconsistency in the current approach to adolescent autonomy and that inquiry into the currently approach is justified and important.

In chapter two I introduced a variety of concepts and demonstrated why each of them were important to both medical practice broadly and adolescent autonomy specifically. First I discussed well-being and demonstrated the importance of well-being the medical system and to human life. Next I introduced the concept of autonomy and discussed why it is important and why it should be respected by health professionals. This is because by respecting an autonomous agents right to choose for themselves you increase the chances of maximizing well-being. Additionally autonomous expression is a component of well-being and the denial of autonomy will invariably cause harm.

In the latter half of chapter two I discussed the idea of liberty. I showed how liberty can be used as a tool to set just limits to autonomy, avoiding the negative effects of allowing people to act entirely based on their own preference while still allowing the positive benefits of well-being. In chapter two I define and discuss the concept of liberty and show the point at which a person may be rightly interfered with by society. In doing so I also demonstrate the scenarios where society is not justified in interfering with the autonomous action of competent individuals.

After showing liberty, well-being and autonomy to be important morally relevant factors in the discussion of adolescent autonomy, I discuss in chapter three how these three concepts interact with one another and how they should be balanced in light of one another. My essential claim here is that when considering who should make a decision for medical treatment, a competent agent should be given ultimate authority over their treatment. This is based on the fact that empowering autonomous agents to act is what is best for well-being. Liberty is then a tool used to empower autonomy, with liberty itself given legitimacy by the positive well-being value of autonomy.

In making this claim, it was essential that I address the idea of paternalism, the act of doing good for someone against their will. This is what the latter part of chapter three was dedicated to, and ultimately I concluded that while some forms of paternalism are justified, others are not. One may justify the use of soft paternalism, as soft paternalism is by definition related to an agent who is not capable of making an autonomous decision. As I had previously claimed that the positive well-being value of autonomy is what gives liberty its legitimacy, it follows that without the ability to act autonomously, liberty too loses its value. On the other hand, hard paternalism cannot be justified, as it necessarily requires that an autonomous agent be over ridden.

In chapter four I examined anatomical and developmental approaches to development to assess if there is anything that they have to offer my discussion of adolescent autonomy. I begin by discussing how imaging has increased human understanding of the human brain and how it functions. After this I looked at the pre-frontal cortex as the region of the brain most commonly associated with higher executive functions and autonomy. Finally, I relate the current understanding of brain development to the behaviors observed around the same time as the development occurs. Through this discussion I demonstrate that while neuroscience has much to offer on the functioning of the human body, the current inability to draw a direct link between the physical brain and consciousness seriously limits the usefulness of brain anatomy when attempting to define the point at which one becomes capable of autonomous decision making.

Another important point made in chapter 4 is that despite the claims by some that neuroscience and imaging provide objective measures, this is only true of the specific parameters they are trying to test. When considering the consequences of specific brain changes and applying neuroscience to everyday life, there is and always will be an interpretive human element that introduces significant subjectivity. I also show that attempting to define the point at which the non-autonomous agent gains the capacity for autonomy is made even less plausible as there is significant interindividual variation making any specific point of development difficult to determine and generalize, especially when considering the impact on behavior.

Finally in chapter four I discussed developmental theories of development and how they contribute to the discussion regarding adolescent autonomy. Specifically, I examined what such approaches are trying to assess. In my discussion I show that developmental theories are more interested in using behavioral features and milestones to assess what has been defined as a normal course of development in relation to age. This is less about trying to define specific points of development and more about screening for pathology that may be affecting development. Again, the impossibility of defining normal with such massive interindividual variation makes strict application of such an approach difficult. The relevant question in this thesis is attempting to mark the point at which a person gains the capacity for autonomy. Typical applications of developmental approaches to development do not do this. However, Lord Scarman's test for competence could plausibly be seen as an attempt to create a complex milestone for competence. Regardless of whether or not his

specific test is perfect, it is an approach that is theoretically consistent with the discussion in this thesis, and so merits further inquiry.

In chapter 5 I considered an example where a 15 and an 11 year-old girl were ordered to receive treatment against their wishes. By using this example I proved that this is an issue which is currently facing real people and where the decisions being made are highly contentious . I used this chapter to consider some of the real world effects and consequences of enforcement of such orders, and to highlight the fact that every case will have specific harms that cannot all be considered in a purely theoretical approach.

Throughout this thesis I have put forward a way in which adolescent autonomy may be considered within a social and medical framework. My approach has emphasized the role of autonomy in well-being and the respect that autonomy should therefore be given. Throughout my discussion I have addressed a variety of ideas that are important to medical practice and should be carefully considered regardless of the approach that is ultimately taken to them.

This work is limited in a number of ways. One limitation is that the work done here is almost entirely non-empirical. The few real world examples that are used in this thesis have been used to illustrate points and inspire thought rather than to make concrete claims. I always intended to take a theoretical approach as the purpose of this thesis has been to give one plausible answer to an important question which has surprisingly little written about it at the current time. However, this lack of empirical data limits the degree to which the approach discussed in this thesis can be directly compared to other approaches.

The nature of such writing is that is it highly subjective. I have taken an approach that was heavily influenced by Mill, and to a lesser degree Kant, but there are numerous other plausible ways to consider this particular issue. I claim that my approach is best for well-being, but as mentioned above this is ultimately a verifiable claim. There are significant limitations still on measuring well-being, due to its complex and highly personal nature. However, if well-being was able to be accurately measured then all the claims in this thesis could be tested.

An important limitation is based on the idea of autonomy. It was not within the scope of this thesis to get into a detailed discussion, but much of what I have claimed relies on the assumption that people are capable of autonomous action, or at least, action that is

autonomous enough. This is a point that could be attacked if one were to claim that the autonomy that I speak of does not exist. Such a discussion was outside of the scope of this thesis.

What exactly autonomy means in light of the advances in human understanding over the 20th and 21st century are thus a critically important field of thought which must be developed. Autonomy is a subject which has already been widely written on and which has been discussed in this thesis to great length in literature. But despite this fact, what exactly constitutes autonomy and the point at which one becomes capable of autonomous action remains highly debated and unclear. If health professionals are going to attempt to make a distinction between competent and non-competent adolescents, they are going to need tools to do so. Work then is required to attempt to create such tools or establish systems within which problems of autonomy can be considered and weighed in a consistent and ethical way.

A fundamental assumption of this thesis is that people who are capable of autonomous action and empowered to act are capable of acting in their own best interests. I am by no means the first person to have made this claim, but much of the writing in this thesis relates in some way to this important point. This point should be debated further and where possible tested.

There is much future work to be done in this topic and my hope is that this thesis will serve as something to for future writers to critique and build on. To begin to apply some of the ideas I have discussed there is the need for a clear understanding of what constitutes well-being. Without such an understanding, it will make any direct comparison between systems hard to make conclusive claims over.

A critical point that requires further work is on the development of competence. There is the need for a consistent, well thought out approach to competence that can address all of the concerns raised in this thesis regarding the current approaches. Some key points in regards to competence include: the competence to act in the moment versus the potential for competence; competence for a specific action versus competence in general; how competent is competent enough?

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